

**ANCIENT
INDIAN
NUMISMATICS**

A Historiographical Study

SHANKAR GOYAL

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Dr. Shankar Goyal has co-edited a number of works with such eminent scholars as Professors G.C. Pande (former Vice-Chancellor, Universities of Rajasthan and Allahabad), B.Ch. Chhabra (former Director-General of Archaeology, Government of India, New Delhi) and Jagannath Agrawal (eminent Sanskritist and historian, Chandigarh), which are directly or indirectly concerned with this discipline. These include *Political History in a Changing World* (Jodhpur, 1992), *Reappraising Gupta History* (New Delhi, 1992) and *S.R. Goyal : His Multidimensional Historiography* (New Delhi, 1992).

He has also co-edited several other monographs with Shri Munish Chandra Joshi (former Director-General of Archaeology, Government of India, New Delhi) and Dr. Sobhag Mathur, (presently Head, Department of History, J.N.V. University, Jodhpur) which include *King Chandra and the Meharauli Pillar* (Meerut, 1989), *Spectrum of Nehru's Thought* (New Delhi, 1994), and *Rajasthan Bharati*, in 2 vols. (Jodhpur, 1995), and authored about seventy research papers. Thus, his research output has been stupendous and its originality and quality superb, as is evident from the views of competent scholars on his works and their reviews appearing in national and international journals.

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By

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Dedicated with utmost respect and regards
to my father
Professor S.R. Goyal
whose love for me
is
just fathomless and boundless

Author's Preface

In the present work I have sought to survey the history of ancient Indian numismatic studies from the late eighteenth century to 1998. I have also tried to find out along what lines the study of the coinages of various dynasties and periods has progressed. The task was a difficult one, for the works of early savants are not easily available; sometimes even the latest works on the subject are obtainable in India only with great difficulty. Further, the number of research papers scattered in various journals (both numismatic and non-numismatic), standard works, felicitation volumes, commemoration volumes, etc. is almost countless.¹ I had, therefore, no option but consult secondary sources for those works of early savants which I could not consult directly, to candidly admit at a couple of places my failure to consult some recent works and to concentrate my attention on more significant papers and articles at the cost of others. But it has resulted in a glaring shortcoming in my work. As is well-known, quite a few numismatists of high repute, whether of the past or present generation, wrote independent monographs only rarely; they expressed their views in the form of articles. Professors V.S. Agrawala, Jagannath Agrawal, B.Ch. Chhabra, K.D. Bajpai, Upendra Thakur, S.V. Sohoni, etc. of the earlier generation and Professors Lallanji Gopal, Shobhana Gokhale, T.P. Verma and Nisar Ahmad of comparatively younger generation have hardly written any monographs

1. Research articles are published more frequently than monographs; actually they are always coming out. Even when I was writing these lines (when the printing of the book is already over), I received my copy of the latest number of *Man and Environment* (Vol. XXIII, No. 1, 1998) which contains Dilip Rajgor's article 'Rediscovering the Janapada Punch-Marked Coins of Early Historic India' (pp. 45-62); naturally it is not possible for me to discuss his conclusions in my Chapter on PMC.

on the subject, though their contributions to numismatic studies demand respectful attention. I have known most of them personally and have great regard for each of them. I have, therefore, naturally tried my best to discuss their more important papers and highlight their respective contributions to the discipline of numismatics, but I know that I must have committed, atleast unconsciously, acts of omission for which I crave for the indulgence of learned readers. However, some of the articles, and also books, which came to my notice after the present monograph had been printed, I have included in the Addenda.

While on the subject of the shortcomings of the present work, I must also confess that it has not been possible for me to discuss post-Vākāṭaka coins of the Deccan, coins of South India and the Roman coins found in India.

The present work owes its origin to my association with the preparation by my father Professor S.R. Goyal of his *Indigenous Coins of Early India* and *The Dynastic Coins of Ancient India*, both of which ultimately appeared in a combined volume also, titled *The Coinage of Ancient India* (Jodhpur, 1995). About the same time, in the early years of the 'nineties, when he was actively engaged in this venture, I was completing my Doctoral dissertation on recent historiography of ancient India since Independence which was supplicated to and approved by the Jai Narain Vyas University, Jodhpur, in 1992. Then, as I had selected historiography as my special field of academic pursuits, on my request my father permitted me to contribute sections on the historiography of the coinages of various periods and dynasties for his above-mentioned book. The pages which I contributed to his monograph became the nucleus of the present work on which I started working after I became free from the worries of my thesis.

In the preparation of this monograph I received help and encouragement from various sources. Of course in my every academic venture I enjoy the blessings of Professors G.C. Pande (Allahabad), V.S.

Pathak (Gorakhpur), Lallanji Gopal (Varanasi) and A.M. Shastri (Nagpur), whose dedication to Indological studies always instils in me an urge to work. However, the initial suggestion to take up this venture came from my father, Professor S.R. Goyal, to whom this work is respectfully dedicated. He also went through the entire manuscript of the work, made valuable suggestions and corrections and let me draw upon the vast storehouse of his knowledge of the subject (as is evidenced by his magnum opus, *The Coinage of Ancient India*), whenever I was in doubt or need.

Then the name which comes to my mind is that of my respected teacher Professor M.K. Dhavalikar, Former Director, Deccan College Post-Graduate and Research Institute, Pune, who taught me the ABC of numismatics during my post-graduate studies there and gave me whatever help I requested him to give during the preparation of this volume. He suggested to me to narrate the story of Indian numismatic studies upto c. 1200 A.D., a suggestion which unfortunately I have not been able to carry out.

Among other scholars to whom I am specially beholden include Professor Devendra Handa and Dr. Ashvini Agrawal of the Department of Ancient Indian History, Culture and Archaeology, Panjab University, Chandigarh, and Dr. Manmohan Kumar of the Department of History, M.D. University, Rohtak, who made very valuable suggestions and helped me by providing some basic material.

I am thankful to Dr. Sobhag Mathur, Head, Department of History, Jai Narain Vyas University, Jodhpur, who took genuine interest in the progress of this work and my Departmental colleagues, particularly Dr. S.K. Purohit, Dr. P.R. Arya and Dr. S.P. Vyas, for being a great source of encouragement.

Dr. (Miss) Manorama Upadhyaya, Assistant Professor in History, Mahila Mahavidyalaya, Jodhpur, has also earned my gratitude by going through the manuscript and offering some useful suggestions.

Lastly, I wish to pay my respects to my mother Smt. Kusum Goyal and shower my blessings on my darling daughter Meghna *alias* Chinu. Meghna has started asking questions on numismatics but her questions are usually so 'bafflingly innocent' that not only me but sometimes her Grandpa also feels stumped.

Shankar Goyal

Contents

<i>Author's Preface</i>	<i>vii</i>
<i>Abbreviations</i>	<i>xvii</i>

Chapter One

The Origin and Antiquity of Coinage in India	1-37
1. Nature of the Problem	1
2. Early Theories on the Origin of Indian Coinage : Greek Origin Theory	2
3. Babylonian Origin Theory	3
4. Achaemenian Origin Theory	3
5. Early Advocates of the Theory of Indigenous Origin and Their Views on the Antiquity of Coinage in India	4
6. Indus Civilization and the Problem of the Antiquity of Indian Coinage	7
7. D.D. Kosambi on the Antiquity of PMC	8
8. Progress of Historiography of the Origin and Antiquity of Coinage in India in Post-1947 Decades : Controversy over the Identification of Śatamāna of Literature with Bent Bar Coins : V.S. Agrawala, A.S. Altekar and D.C. Sircar	10
9. A.S. Altekar on the Origin and Antiquity of Coinage in India	13
10. P.L. Gupta	15
11. A.M. Shastri	16
12. S.C. Ray : Archaeological Evidence on the Antiquity of PMC	17
13. Michael Mitchiner	19

14. M.K. Dhavalikar : Revival of the Theory of Achaemenian Impact on the Origin of Coinage in India	19
15. V.S. Pathak	22
16. Joe Cribb	23
17. B.N. Mukherjee	31
18. S.R. Goyal	33
19. Romila Thapar	36
20. Summing Up	36

Chapter Two

The Punch-marked Coins	38-57
1. Early PMC Studies	38
2. A.Cunningham and E.J. Rapson	39
3. D.B. Spooner, V.A. Smith and A. Foucher	41
4. Durga Prasad, D.R. Bhandarkar and E.H.C. Walsh	42
5. John Allan	44
6. Other PMC Studies of Pre-Independence Period	45
7. Post-1947 Period : D.D. Kosambi	46
8. A.H. Dani and C.L. Fabri	48
9. Romila Thapar, A.D.H. Bivar and A.N. Lahiri	50
10. Seminar on PMC Chronology	52
11. Michael Mitchiner, C.Valdettaro and A.M. Shastri	52
12. P.L. Gupta	53
13. S.R. Goyal	55

Chapter Three

The Tribal and Local Coins	58-67
1. Early Studies : Upto 1914	58
2. A. Cunningham, E.J. Rapson and V.A. Smith	58
3. Later Studies : Before 1947 : R.D. Banerji and Some Others	59
4. S.K. Chakraborty and Some Others	60
5. Post-1947 Studies	60

6. Seminars on Local and Tribal Coins and the Works of M.K. Sharan and K.K. Dasgupta	61
7. Bela Lahiri	62
8. A.M. Shastri and P.L. Gupta	63
9. S.R. Goyal	64

Chapter Four

The Indo-Greek Coinage 68-89

1. The Beginnings	68
2. Theophilus Bayer and Some Other Early Savants	68
3. H.H. Wilson and E. Thomas	70
4. Alexander Cunningham	70
5. Percy Gardner	70
6. V.A. Smith, H.G. Rawlinson and E.J. Rapson	71
7. R.B. Whitehead	71
8. W.W. Tarn	71
9. Early Years of Post-1947 Era	72
10. A.K. Narain	73
11. A.N. Lahiri	76
12. Oliver Guillaume	78
13. S.R. Goyal	81
14. B.N. Mukherjee	87
15. M. Mitchiner and Morton Smith	88

Chapter Five

The Imperial Scytho-Parthian and Western Kshatrapa Coinage 90-103

1. Historical Background of the Imperial Scytho-Parthian Coinage	90
2. Imperial Scytho-Parthians	91
3. Historical Background of the Kshatrapa Coinage : Kshatrapa Institution	93
4. Advent of the Sakas in Western India	94

5. The Western Kshatrapas	95
6. Beginnings of the Study of Scytho-Parthian Coinage	96
7. Progress of the Numismatography of the Scytho-Parthian Rulers	97
8. Studies in Western Kshatrapa Coinage : The Early Phase	99
9. Post-Rapson Studies	100
10. Amiteshwar Jha and Dilip Rajgor	102

Chapter Six

The Coinage of the Kushāṇas **104-134**

1. Historical Background of the Kushāṇa Coinage	104
2. Beginnings of the Studies of Kushāṇa Coinage	107
3. Alexander Cunningham	108
4. C.J. Rodgers, P. Gardner and E.J. Rapson	108
5. London Seminar (1913) on the Date of Kanishka	109
6. R.B. Whitehead, V.A. Smith, B.B. Vidyavinod, D.R. Bhandarkar and R.D. Banerji	110
7. Works on Kushāṇa Numismatics Since 1947	111
8. London Conference (1961) on the Date of Kanishka	112
9. Dushanbe, New Delhi and Allahabad Conferences	114
10. B.N. Mukherjee	115
11. Gritli von Mitterwallner	123
12. Bhaskar Chattopadhyay	125
13. Satya Shrava	129
14. P.L. Gupta	129
15. S.R. Goyal	133

Chapter Seven

The Sātavāhana Coinage **135-151**

1. Beginnings and Progress of Sātavāhana Numismatics	135
2. A.M. Shastri	136
3. I.K. Sarma	142
4. D. Raja Reddy and P. Suryanarayana Reddy	145

5. Mala Dutta	147
6. S.R. Goyal	149
7. B.N. Mukherjee	150

Chapter Eight

The Coinage of the Gupta Empire	152-175
1. The Beginnings: V.A. Smith and John Allan	152
2. A.S. Altekar	155
3. P.L. Gupta	160
4. Jai Prakash Singh	161
5. S.R. Goyal	163
6. B.N. Mukherjee	168
7. Ellen M. Raven	170
8. Some Miscellaneous Works	172

Chapter Nine

The Coinage of the Vākāṭakas	176-184
1. Do the Vākāṭaka Coins Exist ? Views of Earlier Scholars	176
2. A.M. Shastri	178
3. A.H. Siddiqui	183

Chapter Ten

Coins of the North Indian Dynasties of the Post-Gupta Period (550-750 A.D.)	185-199
1. North Indian Coins in the Post-Gupta Century (upto c. 650 A.D.)	185
2. Gold Coins of Eastern India : A.S. Altekar	185
3. B.N. Mukherjee	187
4. Silver Coins of the Maukharis and Other Post-Gupta Indigenous Kings : A.S. Altekar, T.G. Aravamuthan, B.P. Sinha, D. Devahuti and Some Others	187
5. Copper Coins of Indigenous Kings	189

6. Hūṇa Coins : A. Cunningham, A.S. Altekar, A.K. Narain and Upendra Thakur	190
7. Silver Coins of Pratāpaśīla and Śīlāditya : A. Cunningham, A.F. Hoernle, R. Burn, D. Devahuti and Others	192
8. K.D. Bajpai on the Gold Coin of Harsha	195
9. Gupta Influence on Post-Harsha Coins : Works of A. Cunningham, D.W. MacDowall, Lahiris, D.C. Sircar and Lallanji Gopal	197

Chapter Eleven

Some Miscellaneous Aspects	200-210
1. General Works on Ancient Indian Numismatics	200
2. Monographs on Some Specialised Topics	202
3. Numismatics and Archaeology	205
4. Numismatic Works with Economic Perspective	206
5. Collected Works	208
6. Numismatic Institutes and Journals	208
<i>Addenda</i>	211
<i>Bibliographical Index</i>	212-226

Abbreviations

<i>ABORI</i>	<i>Annals of the Bhandarkar Oriental Research Institute</i>
<i>Ari. Ant.</i>	<i>Ariana Antiqua</i> , by H.H. Wilson
<i>ASI, AR</i>	<i>Archaeological Survey of India, Annual Report</i>
<i>BMC, AI</i>	<i>A Catalogue of Coins of Ancient India in the British Museum</i> , ed. by E.J. Rapson
<i>BMC, AWK</i>	<i>Catalogue of the Indian Coins in the British Museum, Coins of the Āndhra Dynasty, Western Kshatrapas, the Traikūṭaka Dynasty and the Bodhi Dynasty</i> , by E.J. Rapson
<i>BMC, GD</i>	<i>Catalogue of the Coins of the Gupta Dynasties and of Śaśāṅka, King of Gauḍa (in the British Museum)</i> , by John Allan
<i>BSOAS</i>	<i>Bulletin of the School of Oriental and African Studies</i>
<i>CAI</i>	<i>Coins of Ancient India</i> , by A. Cunningham
<i>CHI</i>	<i>Cambridge History of India</i> , I, ed. by E.J. Rapson
<i>CMI</i>	<i>Coins of Medieval India</i> , by Alexander Cunningham
<i>Coinage</i>	(i) <i>The Coinage of Ancient India</i> , by S.R. Goyal (ii) <i>The Coinage of the Gupta Empire</i> , by A.S. Altekar
<i>Comp. Hist. Ind.</i>	<i>A Comprehensive History of India</i> , Vol. II, ed. by K.A.N. Sastri and Vol. III, ed. by R.C. Majumdar and K.K. Dasgupta
<i>DKM</i>	<i>Decline of the Kingdom of Magadha</i> , by B.P. Sinha
<i>EIH</i>	<i>Early Indian Indigenous Coins</i> , ed. by D.C. Sircar
<i>HIG</i>	<i>A History of the Imperial Guptas</i> , by S.R. Goyal
<i>IC</i>	<i>Indian Culture</i>
<i>ICEI</i>	<i>Indigenous Coins of Early India</i> , by S.R. Goyal
<i>IHQ</i>	<i>Indian Historical Quarterly</i>
<i>IMC</i>	<i>Catalogue of Coins in the Indian Museum, I</i> , by V.A. Smith

JA	<i>Journal Asiatique</i>
JAIH	<i>Journal of Ancient Indian History</i>
JAOS	<i>Journal of the American Oriental Society</i>
JASB	<i>Journal and Proceedings of the Asiatic Society of Bengal</i>
JBBRAS	<i>Journal of the Bombay Branch of the Royal Asiatic Society</i>
JBORS	<i>Journal of Bihar and Orissa Research Society</i>
JIH	<i>Journal of Indian History</i>
JNSI	<i>Journal of the Numismatic Society of India</i>
JRAS	<i>Journal of the Royal Asiatic Society of Great Britain and Ireland</i>
MASI	<i>Memoirs of the Archaeological Survey of India</i>
NC	<i>Numismatic Chronicle</i>
ND	<i>Numismatic Digest</i>
NIA	<i>New Indian Antiquary</i>
NHIP	<i>A New History of the Indian People, Vol. VI : The Vākāṭaka - Gupta Age, ed. by R.C. Majumdar and A.S. Altekar</i>
NS	(i) <i>Numismatic Supplement</i> (ii) <i>Numismatic Studies</i>
PHAI	<i>Political History of Ancient India, by H.C. Raychaudhuri</i>
PMC	(i) <i>Punch-marked Coin (Coins)</i> (ii) <i>Catalogue of Coins in the Punjab Museum, Lahore, by R.B. Whitehead</i>
RGHSRG	<i>Reappraising Gupta History for S.R. Goyal, ed. by B. Ch. Chhabra, P.K. Agrawala, Ashvini Agrawal and Shankar Goyal</i>
SP,PMC	<i>Seminar Papers on the Chronology of the Punch-marked Coins, ed. by A.K. Narain and Lallanji Gopal</i>
SRG:MDH	<i>S.R. Goyal : His Multidimensional Historiography, ed. by Jagannath Agrawal and Shankar Goyal</i>
VIJ	<i>The Vishveshwaranand Indological Journal</i>
ZDMG	<i>Zeitschrift der Deutschen Morgenlandischen Gesellschaft</i>

Chapter One

The Origin and Antiquity of Coinage in India

Nature of the Problem

The problem of the antiquity of coinage in India and the question whether coinage in India originated indigenously or was the result of some foreign influence are intertwined with each other. Those scholars who believe that ancient Indian coinage was the result of the influence of some foreign country naturally carry back its antiquity only to that earliest period when India came into contact with the coinage of that country for the first time, irrespective of the testimony of indigenous sources. The very nature of such a supposition forces them to reject or explain away the evidence which might prove that coinage in India existed before this country came into contact with that foreign influence. On the other hand, those who believe that Indian coinage system evolved and developed indigenously have no such compulsion; they usually feel themselves free to make use of the testimony of the indigenous sources, sometimes even going beyond what their sources actually depose.

The historiography of the origin and antiquity of coinage in India has suffered from both these prejudices from the very beginning. As pointed out by S.R. Goyal, "During the days of the British rule in our country the tendency of the European scholars was to trace every achievement of our ancestors, including the evolution of coinage, to foreign influence." They usually suffered from their imperialist bias. The Indian historians, on the other hand, primarily as a reaction to the superiority complex of the European scholars, tried to prove indigenous origin and high antiquity for the various elements of our culture. The

conflicting attitudes of Western and Indian historians on the question of the origin of Indian coinage is a good example of these tendencies.’’¹

Early Theories on the Origin of Indian Coinage : Greek Origin Theory

A majority of the early scholars of the last century credited most innovations in Indian culture to the Greeks. Even Indian history was taken to begin with the invasion of Alexander in 327 B.C. It was, therefore, thought that the coinage was also introduced in India by the Greeks of Bactria. Wilson (*Ariana Antiqua*, p. 484) thought it likely that the currency in India consisted chiefly, if not exclusively, of lumps of gold and silver not bearing any impression, until the Hindus learnt the usefulness of money from their Bactrian neighbours and from their commerce, especially with Rome. Prinsep (*JASB*, I, p. 394; *Prinsep's Essays*, I, pp. 53-54) also at first held the same view and doubted whether any native coins, properly so called, had circulation in India anterior to the invasion of Alexander the Great, though later on he modified his views and admitted that the Indians had an indigenous currency. But even then he continued to believe that the die-device was learnt by them from the Greeks.

The Greek origin theory of Indian coinage was severely criticised by Altekar in 1953. (*JNSI*, Vol. XV). He pointed out that borrowing of one coin-type from another presupposes a sufficiently significant similarity in type, shape and metrology. But there is no such resemblance between Greek coins on the one hand and the punch-marked coins on the other, which represent the earliest coinage of ancient India. Secondly, the accounts of some of the historians of Alexander the Great clearly show that minted silver currency was already in existence in India prior to his invasion. Thus, in his *Life of Alexander* Quintus Curtius tells us (VIII. 12.42) that among the presents given by the king of Taxila to Alexander were included two hundred talents of *signati argenti*. This

1. Goyal, S.R., *The Coinage of Ancient India*, Jodhpur, 1995, p. 71.

expression can only refer to 'coined silver money' and not to silver bullion. Further, the larger Bhir Mound hoard of PMC, discovered at Taxila in 1924, also definitely proves that the silver PMC were in circulation in India at least a couple of centuries earlier than Alexander's invasion. (*MASI*, No. 59, pp. 1-2). This hoard was found in the second stratum of Bhir Mound, which belonged to the 3rd or the 4th century B.C. It contained 1055 PMC of the usual type besides two coins of Alexander and one of Philip Aridaeus. The PMC from the hoard were very worn, indicating that they must have been in circulation for a considerable time, long before the advent of the coins of Aridaeus and Alexander in the hoard which were almost in mint condition.

Babylonian Origin Theory

Among early numismatists the theory of the Babylonian origin of PMC, the earliest coinage of India, was advanced by Kennedy. (*JRAS*, 1898). He argued that the Babylonian shekels were marked with punches like the Indian punch-marked coins. Both bear no inscription and were flat in shape and both had standard weights but no standard size. Both used a small copper alloy. Further, the *Jātakas* prove that Indian merchants used to go to Babylon for trade. It is also almost certain that India imported silver from that quarter in the form of spreadout plates. One may, therefore, conclude that the Indian PMC were influenced by the Babylonian shekels. V.A. Smith's view was substantially the same. (*IMC*, I, pp. 279 ff.).

Kennedy's theory was criticised and rejected in 1953 by Altekar. (*JNSI*, XV). He argued that the weight system of the two currencies was different. The Babylonian shekel weighed 132 grains while the Indian PMC normally weighs 56 grains. The typical PMC originated probably in Madhyadeśa and it is very doubtful whether the Babylonian shekels were known to anybody in India except a few merchants of Western India. The theory of the Babylonian origin of Indian coinage is, thus, untenable.

Achaemenian Origin Theory

In the early phase of numismatic studies J.A. Decourdemanches, a

French scholar, advocated the theory of the Achaemenian origin of Indian coinage. (*JA*, 1912, pp. 117-32). According to him, PMC, whether of silver or copper, constitute simply an Indian variety of the Achaemenian coinage. Just as Muslim rulers in later times issued some coins with Hindu symbols and inscriptions side by side with others with purely Arabic style and legends, the Achaemenian sovereigns struck punch-marked coins with Indian symbols side by side with their own Persian *sigloi*. Allan held more or less the same view. He opines, "It is very possible that the idea of a coinage came to India in the fifth or early fourth century B.C. from Achaemenid territory, being suggested by the *sigloi* although its character is entirely Indian." (*BMC, AI*, 1936, p. lxxi). But the hollowness of this theory was forcefully shown by Altekar. He argued that the Muslim sovereigns issued coins of the Hindu type because they were already current in the country. But why should Achaemenian rulers issue coins with Hindu symbols, when none such existed in the country before their advent? The shape, the size and symbols of the Persian *sigloi* are so totally different from those of the punch-marked coins that they can never be regarded as the prototypes of the latter. The *sigloi* have nothing like a group of four or five punch-marked symbols; the punch-marked coins have nothing like the king as an archer half kneeling to right. The earliest punch-marked coins most probably originated in Madhyadesa (modern U.P.) and the Achaemenian influence had never penetrated to that region in the 6th or 5th century B.C., when the punch-marked coins had become quite common in that province. The weight of a *sigloi* was about 86 grains; a normal punch-marked coin usually weighs only 56 grains; the two weight systems show no connection whatsoever. (*JNSI*, XV, 1953, p. 7).

Early Advocates of the Theory of Indigenous Origin and Their Views on the Antiquity of Coinage in India

In the early phase of numismatic studies there were a number of numismatists, even among the Europeans, who did not subscribe to the theory of foreign origin of ancient Indian coinage. Rapson thought that

the punch-marked coins were developed independently of any foreign influence. (*Indian Coins*, p. 2; *JRAS*, 1895, pp. 869 ff.). The same was the opinion of Edward Thomas. He observed, ‘‘Designs, treatment and die-devices (of ancient Indian coins), evince independent thought. The Indian figures follow the ideal models of their own land and bear no trace of the conventionalities of the Greek art. The devices, though at times rising above mediocrity, effect only local associations and are as free from all symptoms of imitation of the favourite Greek subjects as their details are deficient in the boldness and freedom of classical dies.’’ (*Prinsep’s Essays*, I, p. 211). Cunningham (*Coins of Ancient India*, p. 43) too did not believe in any foreign influence on the origin of Indian coinage.

However, most early Western scholars, even if they subscribed to the theory of the indigenous origin of Indian coinage, did not assign a high antiquity to it. Allan, for example, did not think that the antiquity of the latter can go much further back than the 4th century B.C. While admitting that there is sufficient evidence to show that coins were known before the Mauryan period, he adds, ‘‘It is not impossible that the tradition of the great wealth of the Nandas owes its origin to their having been the first to issue coins on a large scale. In any case there is no evidence that coinage in India is older than the Nanda period and the earliest finds, Paila, Set Mahet, and Golakpur, may indicate the region in which punch-marked coins originated. The similarity in the constitution of the usual finds indicates that punch-marked coinage did not exist over a very long period; the fact that it had not been established is indicated by the rapidity with which the new coins with type and inscription struck from a single die ousted the punch-marked coins from the second century B.C. onwards.’’ (*BMC, AI*, Intro., p. lxxi).

Other European scholars, however, placed the beginning of the Indian coinage slightly earlier. Kennedy thought that the punch-marked coins were copied from the Babylonian originals after the opening of the maritime trade with Western Asia in the 6th century B.C. (*JRAS*, 1898,

pp. 279 ff.). Smith's view was more or less the same. In his article on Numismatics contributed to the *Imperial Gazetteer* he wrote: "The introduction in India of the use of coins, that is to say, metallic pieces of definite weight authenticated as currency by marks recognised as guarantee of value, may be ascribed with much probability to the seventh century B.C., when foreign maritime trade seems to have begun. There is reason to believe that the necessities of commerce with foreign merchants were the immediate occasion for the adoption by the Indian people of a metallic currency, as well as alphabetical writing." (*Imperial Gazetteer*, II, p. 183). Later on, however, he slightly modified his view; for in his *Catalogue of the Coins in the Indian Museum*, he suggested that the earliest punch-marked coins, viz., the bent bar pieces, were not earlier than 500 or 600 B.C. (p. 183). Cunningham's view on this question was more liberal. (*Coins of Ancient India*, p. 43). According to him, PMC "were certainly current in the time of the Buddha, i.e., in the 6th century B.C." But, he admits, "I see no difficulty in thinking that they might mount as high as 1000 B.C. They certainly belonged to the infancy of coinage."

Among the Indian numismatists S.K. Chakraborty was inclined to agree with the view of Cunningham. After making a review of the whole evidence, he concluded: "So it can be safely asserted that coinage in India was evolved at about 800 B.C. and if we fix the approximate date at 1000 B.C. and accept the view of Sir Alexander Cunningham, we are not likely to go wrong; at least the margin of error would be very small." (*A Study of Ancient Indian Numismatics*, Calcutta, 1931, p. 33).

D.R. Bhandarkar, however, placed the origin of coinage in India much earlier. After considering the available evidences, he came to the conclusion that the coined money was current in the Vedic period which according to him, in all probability extended from c. 2500 B.C. to 800 B.C.

He argued that since coins like the *kṛshṇalas*, *suvarṇas*, *śatamānas* and *nishkas* are mentioned not only in the *Brāhmaṇas* but also in the

Samhitā portion of the Vedas, the conclusion becomes irresistible that the art of coinage was known to India when the Vedic Aryans composed the Vedic hymns, i.e. about the middle of the third millennium B.C. (*Ancient Indian Numismatics*, Calcutta, 1921, pp. 70-71).

The theory of the antiquity of Indian coinage had been supported, even before D.R. Bhandarkar, by E. Thomas (*Ancient Indian Weights*, London, 1885) and A.C. Das (*Rigvedic Culture*, 1925 p. 140). Elliot also took back the punch-marked coins to the third millennium B.C. (*Coins of Southern India*, London, 1886, p. 45; *JASB*, III, p. 44). He pointed out how the punch-marked coins have been found among the ashes of men who introduced primitive tombs known as Pāṇḍukulis in South India and are unearthed from the ruins of buried cities in excavating the head waters of the Ganges canal. But, as pointed out by Altekar (*op. cit.*), we have no idea whatsoever of the dates of the buried cities, and the punch-marked coins, if they were in circulation among the aboriginal tribes among whom the Pāṇḍukulī type of tombs prevailed, should have been found in several of them which have been opened by the archaeologists. But they have not been found in any such tomb except in the solitary instance recorded by Elliot, the date of which is uncertain.

Indus Civilization and the Problem of the Antiquity of Indian Coinage

After the discovery of the Indus Civilization some Indian scholars were tempted to stretch back the antiquity of Indian coinage to the Indus period. But no metallic pieces have been recovered from Indus sites which can be called coins. At Mohenjodaro in the D K area K.N. Dikshit recovered in 1926 from a wall of the Late Period, a silver casket, which contained jewellery alongwith twelve pieces of silver. Of these one square piece had a cuneiform inscription, showing that it was either imported from Babylonia or was inscribed in Sindh by somebody acquainted with the cuneiform script. Of the remaining pieces, three were silver ingots, weighing 34, 45 and 66.5 grains, obviously following no regular weight system. Of the other remaining pieces, four, which weigh about 45, 90, 91

and 94 grains, seem to follow a weight standard, but it is different from the Indus Valley weight system, of which the unit is of 13 grains. Only two other pieces weighing about 52 and 57 grains may be said to conform to this weight standard. (*JRAS*, 1937, pp. 7-26). Two other pieces, which weigh 60.5 grains and 30.2 grains respectively, also do not follow the Indus weight system. (*JNSI*, XV, pp. 14-15).

These are the only metallic pieces approaching the size and shape of coins. They bear no symbols or inscriptions (except the one which has a cuneiform inscription) and follow no recognised uniform weight standard. They probably show that bits of precious metal were beginning to be trimmed into definite sizes and weights, but no weight system was evolved as yet in their case, as was the case with stone weights. However, K.N. Dikshit considered all the pieces, square or rectangular, as following Babylonian weight standard and also as precursors of PMC. D.D. Kosambi, on the other hand, connected only three of them with a class of Indus weights and with the metrology of PMC. He accepted these three pieces to be as good coins as any. According to him, "There are two interpretations possible: that the pieces represent purchases of silver to an approximate weight; or that they were to be smoothed down at a later date to a precise weight, having had a little margin left and in fact as little margin as possible with fairly clumsy cutting tools. If the latter explanation is accepted, the conclusion must also be taken that we are already beginning to see bits of a precious metal trimmed to standard weight, hence the beginning of a coinage system. In any case the coinage that came later must have originated in some such way, if this be not its immediate origin."¹

D.D. Kosambi on the Antiquity of PMC

Accepting that the earlier Taxila hoard was deposited in c. 317 B.C. (the last known date of Philip III Aridaeus), D.D. Kosambi (*NIA*, 1941-42,

1. Kosambi, D.D., 'On the Origin and Development of Silver Coinage in India', *Current Science*, 10(9), pp. 395-400.

pp. 1-35, 46-76) constructed a chronology on the basis of a statistical analysis of the number of countermarks added to the punch-marked coins subsequently to their first issue. He hypothesised that the countermarks were applied periodically and, therefore, the coins with more countermarks must show greater loss of weight due to circulation over a larger period. His analysis of the statistics demonstrated that such a hypothesis could be validated. A coin with five countermarks showed approximately 2% loss of metal, with ten countermarks 4% loss and with twenty countermarks 8%, etc. He then proposed on a hypothetical basis what he considered the period of time between each countermark might have been. His suggestion was 12 years or possibly 15. On the basis of this conjectural description of the significance of the marks on the coins, he suggested that the earliest coins in the hoard, i.e. those with 20 countermarks or more were made between 240-300 years before his estimated date of the deposit of the hoard — i.e. in c. 616-557 B.C.

D.D. Kosambi's mathematical calculation opened a new area of investigation for he undoubtedly demonstrated that there was a relationship between the number of countermarks on each coin and the loss of metal from it, but his conclusions have not been acceptable to others. Against Kosambi's suggestion Cribb argued (*infra*) that there is no basis for him to assume (a) that the hoard was deposited in c. 317 B.C., (b) that the countermarks were applied at fixed periods, (c) that the loss of metal was related to time in circulation, and (d) that coin wear proceeds at a rate of 1% per 30-40 years. Taking different hypothetical bases for examining the data, one could suggest that each time the coins were countermarked, metal was lost from them by the act of countermarking or by the friction caused during a check of fineness with a touch-stone, or that the coin of Philip III Aridaeus had been dug up previously by the depositor of the hoard decades after it was first made, then was kept as a lucky charm for a few more decades before he hid it again with the hoard. Furthermore, the rate of metal loss due to coin wear is impossible to be assessed and the probability of its being

anything like that suggested by Kosambi does not accord with attested measurements of loss from wear in silver coins over known periods. According to Joe Cribb, ‘‘The weight loss measured in the earlier Taxila hoard could represent a period of as little as twenty years on the basis of published statistics even if it could be shown to represent loss by wear through use. Kosambi’s deductions from the evidence of the weights of the coins in this hoard are virtually meaningless, yet it is now an accepted dictum that the punch-marked coins in this hoard were issued over a period of at least 100 years if not longer.’’ (*JNSI*, XLV, p. 90).

Progress of Historiography of the Origin and Antiquity of Coinage in India in Post-1947 Decades: Controversy Over the Identification of Śatamāna of Literature with Bent Bar Coins : V.S. Agrawala, A.S. Altekar and D.C. Sircar

The years immediately following the dawn of Independence in India witnessed an acute controversy over the śatamāna mentioned in literary texts, and its identification with the bent bar coins, the oldest available coins of India, found in the Gandhāra region. Among the prominent numismatists who figured in this controversy in early 1950s were included V.S. Agrawala, A.S. Altekar and D.C. Sircar. The controversy was relevant from the point of view of the historiography of the antiquity of Indian coinage because the beginning of silver coinage in India and the origin of Indian coinage (in the absence of any archaeological proof for the existence of a gold currency) should mean the same thing.

The name śatamāna literally means ‘measuring a hundred’ and the basis of the measurement has been supposed to be the raktikā or rattī usually regarded as weighing 1.83 grains. In his Carmichael *Lectures on Ancient Indian Numismatics* (Calcutta, 1921, pp. 55 ff.) D.R. Bhandarkar had drawn the attention of scholars to the mention of the coin called śatamāna in Kātyāyana’s *Śrauta Sūtra*, Pāṇini’s *Aṣṭādhyāyī*, Kātyāyana’s *Vārttika* on Pāṇini, *Śatapatha Brāhmaṇa*, *Taittirīya Brāhmaṇa* and *Vājasaneyī Saṃhitā*. He also pointed out that Sāyaṇa in

his commentary on the Śatapatha passages explains śatamāna as a round plate weighing one hundred māna and takes māna to indicate a rattī. Bhandarkar, therefore, assumed that śatamāna may have been of one hundred mānas or guñja berries (rattīs) in weight. In the Cambridge History of India (Vol. I, p. 137) A.B. Keith also spoke of the mention 'in the Brāhmaṇas of the śatamāna, a piece of gold in weight equivalent to a hundred Krishṇalas.'

However, Bhandarkar understood śatamāna in the sense of a gold coin and not a silver one. He believed that gold coins called śatamāna were prevalent even in the early Vedic age. But A.S. Altekar (*op. cit.*) rejected the theory of the existence of a gold currency in the Early Vedic age. Though he conceded that a gold currency including the coins called śatamāna was prevalent in the age of the Brāhmaṇas and Upanishads, but he asserted that śatamāna as a gold coin went out of vogue in later times, and a silver śatamāna of 100 rattīs in weight came into vogue by c. 500 B.C. or 600 B.C. "The Kātyāyana Śrauta Sūtra", he pointed out, "while describing the Aśvamedha sacrifice in Chapter XVI, refers to a dakṣiṇā of hundred gold Śatamānas... But later it again refers to a dakṣiṇā in Śatamāna but adds that the Śatamāna was to be of silver in one case ... There is thus some literary evidence to show that at about 600 B.C., which is generally taken to be the time of the Śrauta Sūtras, a silver Śatamāna had come into vogue, weighing a hundred Rattis or 175 grains." (*JNSI*, XV, p. 21).

Altekar identified the śatamāna of the Sūtra works and of the Ashtādhyāyī of Pāṇini with the bent bar coins of Gandhāra which approximately weigh 100 rattīs. In his Presidential Address delivered at Nagpur before the Numismatic Society of India in December 1950 (*JNSI*, XXII, Pt. ii, 1951, pp. 108 ff.) V.S. Agrawala had also expressed the same opinion. In his paper titled 'Ancient Coins as Known to Pāṇini' (*JNSI*, XV, pp. 30ff.) also, he emphasised that "Taking the literal meaning of śatamāna, of the weight of the 100 mānas or Krishṇalas as suggested in the Vedic Index (II. 152). it would appear that the Takshasilā bent bar

coins (*śalākā*) represent the ancient *śatamāna* coins of silver.”

However, D.C. Sircar ('The *Śatamāna*', *JNSI*, XV, ii, pp. 136-50) did not accept the interpretation of A.S. Altekar and V.S. Agrawala. According to him, these scholars have adduced no evidence to prove that *śatamāna* weighed a hundred *rattīs*. In his view it actually weighed 10 *dharaṇas* or 320 *rattīs* or 100 *mañjādīs*. For this he has quoted the evidence of the *Smṛtis* of *Manu* (III. 135-37) and *Yājñavalkya* (I. 364-65) which explicitly mention silver *Śatamāna* as equal to 10 *dharaṇas* or 320 *rattīs*.

Sircar feels that the belief that the weight of the *śatamāna* was 100 *rattīs* is based on the name which literally means 'measuring 100', i.e. 'made up of 100 units of measurement', on the conjecture that this unit of measurement is no other than the well-known *rattī*. But the evidence of the *Manu-smṛti* and *Yājñavalkya-smṛti* leaves hardly any doubt that the suggestion is absolutely unwarranted.

In his reply to the points raised by D.C. Sircar, Altekar argued (*JNSI*, XV, pp. 146-47) that though there is no explicit statement that *śatamāna* weighed a hundred *rattīs* in the Vedic period, the probability is that that was its weight since earliest times. The hundred it weighed should naturally be taken as referring to a tiny weight well-known to the *Samhitās* and the *Brāhmaṇas*. *Kṛṣṇala* or *raktikā* is referred to as such a weight in several passages of the *Taittirīya Samhitā* II. 3.2.1, *Maitrāyaṇīya Samhitā* II.2.2, *Taittirīya Brāhmaṇa* I. 3.6.7, etc. It is more likely that the hundred which the *śatamāna* weighed was this *kṛṣṇala* or *raktikā*, so frequently referred to in the *Samhitās* and *Brāhmaṇas*, rather than *mañjādī* which is not mentioned in them at all. The *śatamāna* of 320 *rattīs* mentioned by *Manu* and *Yājñavalkya* seems rather to have been a currency of account books than of actual transactions. At any rate, we have so far discovered no silver coins weighing 320 *rattīs*.

From the above discussion it is obvious that Altekar and V.S. Agrawala were not able to meet squarely the objections of D.C. Sircar against their theory of the identification of the *śatamāna* of literature with the bent bar coins found in Gandhāra. But surprisingly the later

scholars have generally preferred to go along with them rather than with D.C. Sircar.

A.S. Altekar on the Origin and Antiquity of Coinage in India

In 1953 the questions regarding the origin and antiquity of coinage in India were exhaustively discussed by A.S. Altekar. ('Origin and Early History of Coinage in Ancient India', *JNSI*, XV, i, pp. 1-26). In this article Altekar examined all the earlier opinions in detail. He rejected all the theories advocating a foreign origin of Indian coinage. He was of the opinion that Indian coinage evolved indigenously but at the same time he did not subscribe to the view of D.R. Bhandarkar that there existed a gold currency in the early Vedic age. According to him, in the early Vedic age gold "was probably obtained in the form of gold dust from the Punjab rivers and was stored either in bags or *kalāśas* i.e. pots. For the convenience of use, gold dust was transformed into lumps of definite and well-known weights (*hiranyapīṇḍas*) of well recognised value; otherwise we cannot understand the gift of ten lumps of gold alongwith that of ten horses. Gold was also converted into several ornaments used on the different parts of the body. One of these, *nishka*, had also come to be of a definite and well-known weight and of a universally recognised value. Hence we find the kings described as giving the gift of ten or hundred *nishkas*. What precisely was the weight of each *nishka* or *hiranyapīṇḍa*, we do not know." Though *hiranyapīṇḍa*, and *nishka* had become well-known pieces of recognised weight and value, we can hardly describe them as gold coins in the modern sense of the term though the term *nishka* came later to be used for a coin denomination in gold. There is no evidence in the *Rgveda* that the *nishkas* were issued under the authority of the state or guilds and were stamped with crests, insignias, symbols or inscriptions, guaranteeing their contents and value.

The situation, according to Altekar, changed in the age of the Brāhmaṇas and Upanishads when something like a gold currency came into use. *Nishka*, *suvarṇa* and *śatamāna* were its main denominations. *Śatamāna* undoubtedly weighed 100 rattīs or 175 grains. In later times

suvarṇa and *nishka* followed the weight standard of 80 and 320 rattis respectively. The same may have been the case in this period also. Efforts were made to make the gold currency serviceable to the people by issuing smaller pieces, quarter the weight of the normal unit, which were known as *pādas*. *Pāda* was probably a quarter of the *suvarṇa* or *śatamāna*. However *nishkas*, *suvarṇas*, *śatamānas* and even *pādas* were used mainly at the time of the sacrifices of kings and marriages of rich persons, when gifts in gold were regarded as particularly appropriate. They are nowhere mentioned in connection with the prices of any common article.

Gold currency became more common after 800 B.C. In the earlier ages, gold coins are mentioned only in connection with rich gifts from generous kings; now they begin to be mentioned in connection with ordinary economic transactions. *Śatamāna*, which was current as a gold coin in the earlier period, continued to be in use in this age also. It is, however, mentioned not by the *Tripitakas* or the *Jātakas*, but only by Pāṇini who observes that *śatamāna* denoted any object bought for a *śatamāna*. There is some literary evidence to show that at about 600 B.C., which is generally taken to be the time of the Śrauta Sūtras, a silver *śatamāna* had come into vogue, weighing hundred rattis or 175 grains. Altekar accepts the suggestion of V.S. Agrawala that the bent bar coins in silver which have this weight, corresponded to the silver *śatamāna*; especially since the archaeological evidence shows that they were in vogue as early as c. 400 B.C.

During this period, two types of silver coins were in use : one was *śatamāna* and the other was *kārshāpaṇa*. Of these, the former denomination was the earlier one.

The *Ashtādhyāyī* of Pāṇini refers to the *kārshāpaṇa* which was the standard silver coin of the age, and to its several sub-divisions like *ardha-kārshāpaṇa*, *pāda-kārshāpaṇa*, one-eighth *kārshāpaṇa* (*dvimāshaka*), and a *māsha* or one-sixteenth *kārshāpaṇa*. *Kāhāpaṇa* i.e. *kārshāpaṇa* is frequently referred to in the early portions of the Buddhist *Tripitakas*. Silver currency was thus quite well-established in society earlier than

the time of the Buddha and we may safely take its antiquity to c. 700 B.C. Cunningham's observation, 'I see no difficulty in thinking that they (i.e. silver punch-marked coins) may be as old as 1000 B.C.' was of course a mere conjecture; but it is quite possible to argue that if silver coins of about four or five different denominations were quite well-established in c. 700 B.C., the antiquity of the silver currency may go back by three or four centuries earlier.

P.L. Gupta

P.L. Gupta is one of the outstanding numismatists of India and PMC is his special field of study. Therefore his views on the origin and antiquity of coinage in India need careful consideration.

P.L. Gupta has expressed his views on these problems, specially on the chronology of PMC, at several places (such as in the *Punch-marked Coins in the Andhra Pradesh Government Museum*, Hyderabad, 1960; *The Amarāvati Hoard of Silver Punch-Marked Coins*, Hyderabad, 1963; *Coins*, New Delhi, 1969, etc.). In 1966 he presented a paper on 'The Chronology of Punch-Marked Coins' in the Seminar held on this subject by the Department of Ancient Indian History, Culture and Archaeology, Banaras Hindu University, Varanasi. In this paper and elsewhere also, he has argued that the contents of the Chaman Huzuri hoard show that the bent bars and a few other types of the 'Local' series of PMC were current long before the currency of the 'Imperial' series which is conspicuously absent in this hoard. Gupta, therefore, agrees with Durga Prasad in believing that the coins of the 'Local' series of PMC are older than the coins of the 'Imperial' series. The Local series represented the coinage of the janapadas and belonged to the period before the rise of the Magadhan empire. P.L. Gupta surmises that the Local series originated in the seventh if not in the eighth century B.C. In the conclusion of his discussion he suggests that PMC originated in c. 800 B.C. as the issues of various janapadas and that the coins of some janapadas were in circulation till the sixth century B.C. while those of others upto the fifth century. The coins of the Imperial series originated with the rise of the Magadhan

empire some time in the sixth century B.C. This in brief is P.L. Gupta's view on the antiquity of coinage in India.¹ (*SP, PMC*, 1966, p. 5 f.).

One, however, wonders how and why P.L. Gupta puts the initial period of the Imperial series of Magadha in the sixth century B.C. when in that century, and even upto the emergence of the Nandas, Magadha was only one of the janapadas, and not an empire?

A.M. Shastri

In 1966 A.M. Shastri drew the attention of scholars to a *śatamāna* reference in the *Maitrāyaṇī Samhitā* (*SP, PMC*, p. 116). Altekar had drawn the attention of scholars to the reference to the *śatamāna* of silver in the *Kātyāyana Śrauta Sūtra* (XVI. 45). V.S. Agrawala had pointed out a still earlier reference to the silver *śatamāna* in the *Śatapatha Brāhmaṇa* (XIII, 42.10). A.M. Shastri now traced, what he believes to be a much earlier reference to the *śatamānas* of silver in the *Maitrāyaṇī Samhitā* of *Yajurveda* (II.2.2). Shastri agreed with Altekar and Agrawala in believing that like the gold *śatamānas* silver *śatamāna* must have also weighed 100 rattis. "The so-called Long Bar or Bent Bar or single type coins, mostly hailing from the ancient province of Gandhāra", he observes, "and weighing in the proximity of 100 rattis of 175 grains are generally identified as the *śatamānas*. If this identification is correct and if the silver *śatamānas* mentioned in the above works are the same, the *Maitrāyaṇī Samhitā* reference noticed here for the first time tends to take back the antiquity of silver punch-marked coins to the *Samhitā* period which, even according to the most conservative estimate, came to a close not later than 1000 B.C. In the light of these facts it would appear that the observation of Cunningham, who had a rare insight into matters Indian, that the punch-marked coins might be as old as 1000 B.C. was not far wide off the mark." ... "About 1000 B.C. may, therefore, be taken to be the upper limit of the age of the punch-marked coins."²

1. For D.C. Sircar's criticism of P.L. Gupta's views see *SP, PMC*, pp. 155 ff.

2. For a criticism of A.M. Shastri's views vide Maheshwari Prasad, *SP, PMC*, pp. 161 ff.

S.C. Ray : Archaeological Evidence on the Antiquity of PMC

The historiography of the antiquity of coinage in India assumed archaeological dimension in the post-1947 era, for efforts are now being made to determine the chronology of PMC with the help of archaeological data.

The archaeologists generally fix the relative chronology of the excavated materials with the help of P.G. Ware (roughly 1000 B.C. to 600 B.C.), N.B.P. Ware (roughly 600 B.C. to 200 B.C.), etc. and with the help of C-14 dating applied to organic materials contained in the strata. The dating of the PMC is closely related to the dating of the N.B.P. ware since (1) the presence of the former has been reported from practically all the levels of the latter, specially at Atiranjikheda, Kauśāmbī, Rajghat, Rupar, Ahichchhatrā, Hastinapur, Besnagar, Rajgir, Hetimpur, etc., and (2) so far PMC have not been reported from P.G.W. levels, that is, the levels preceding the N.B.P. ware strata. In recent decades great progress has been made in C-14 method of dating. It is true that being objects of inorganic nature PMC can not respond to C-14 method of dating, but in various habitation deposits organic materials and samples of charcoal are found from N.B.P. and PMC bearing strata. The date of these strata may, therefore, be fixed with the C-14 method.

In the Seminar on the Chronology of the Punch-marked Coins held in the Banaras Hindu University, Varanasi, several scholars threw light on the archaeological evidence on the date of PMC. S.C. Ray read a paper on this subject. (*SP, PMC*, 1966, pp. 26-38). Otherwise also he has published a monograph on the coins found in excavations. (Ray, S.C., *Stratigraphic Evidence of Coins in Indian Excavations and Some Allied Issues*, Varanasi, 1959).

According to the chart given in the paper of S.P. Gupta, of the C-14 dates the major period of N.B.P. ware is bracketed between circa 500 B.C. and 105 A.D.; but it is only at Atiranjikheda that it is dated 530-85 B.C. (*SP, PMC*, pp. 41-42). However, the evidence of a single date is never conclusive. The concentration of dates for N.B.P. is between circa

500 B.C. and 50 B.C. S.C. Ray has also pointed out that usually PMC are slightly later than the beginning of the N.B.P. At Hastinapur and Kauśāmbī PMC were slightly later than the initial stage of the N.B.P. One should, therefore, prefer the latter bracket and conclude that archaeologically the antiquity of coinage in India cannot be pushed back earlier than 500 B.C.

The composition of some hoards containing PMC confirm the theory that the circulation of these coins began only shortly before 500 B.C. In this connection the evidence of the following hoards is of special importance:

- (i) Chaman Huzuri Hoard, 1933 : It contained 43 silver punch-marked coins together with Athenian and Achaemenian coins. Date of Burial : c. 4th century B.C.
- (ii) Bhir Mound (Taxila) Hoard, No. 2, 1924 : It contained 33 bent bars, 1055 regular silver and 79 minute punch-marked coins with 2 coins of Alexander and 1 coin of Philip Aridaeus.
- (iii) Bhir Mound (Taxila) Hoard, No. 1, 1912: It contained 176 silver PMC with a silver coin of Diodotus.

Of these the first two hoards suggest the existence of coined money before the invasion of Alexander which took place in c. 325 B.C. The pre-Alexandrian existence of PMC may be further assumed on the basis of their worn out condition implying a considerable period for their circulation, as against fresh mint condition of the coins of Alexander and Philip Aridaeus (last known date 317 B.C.).

The dating of PMC with the help of stratigraphic evidence and their association with datable objects appears to receive indirect support from the evidence of sculpture. The representation of coins, mainly square in shape, in the scene of Jetavana in the sculptures of Bharhut datable to the middle of second century B.C. and on the Mahābodhi Stūpa at Bodhgayā of about 100 B.C. is well-known. The shape of coins depicted in these sculptures strongly suggests that they were intended to be punch-

marked ones, and that they were in circulation, if not in the time of Buddha, at least in the period of the Śuṅgas. A sculpture from Amarāvati also seems to depict coins, likely to be PMC, in the same context.

It may, however, be noted that some scholars do not accept the evidence of the coins found in excavations. For example, J. Cribb still dates the PMC to fourth century B.C. arguing that their association with the N.B.P. ware is chronologically uncertain. (J. Cribb, 'Dating India's Earliest Coins,' in *South Asian Archaeology, 1983*, Naples, 1985, pp. 535-51; also *infra*).

Michael Mitchiner

In 1973 Michael Mitchiner published his *The Origins of Indian Coinage* from London. He connects the beginnings of coinage in India with the second urbanisation. He argues : The date when urbanisation commenced in the Ganges valley is important because it provides an approximation to the earliest date when centralised economic structures evolved and hence the earliest date at which it is reasonable to infer that coinage could have commenced. By taking into consideration all the factors concerning the economic condition of the four major areas — Magadha, Kosala, Avanti and Gandhāra — he has come to the conclusion that one can place the commencement of the Taxila-Gandhāra and the Avanti coinage, like that of the two major Ganges Valley series, in the early sixth century B.C. On the antiquity of coins his views are broadly similar to P.L. Gupta's.

M.K. Dhavalikar : Revival of the Theory of Achaemenian Impact on the Origin of Coinage in India

More than two decades ago, in 1975, M. K. Dhavalikar sought to revive the theory of the Iranian impact on the origin of coinage in India.¹ He pointed out to the fact that the silver bent bar coins of Taxila conform to the weight standard of 175 grains. Therefore V.S. Agrawala is justified

1. Dhavalikar, M.K., 'The Beginning of Coinage in India', *World Archaeology*, VI, 1975, No. 3, pp. 330-38.

in identifying them as the *śatamānas* of literature. A number of such bent bar coins have been found mostly in and around Taxila which was the ancient Gandhāra country. Allan had suggested that the coins of this type were struck on a Persian standard and that they represented double sigloi or staters. That the weight standard of the Indian *śatamāna* and the Persian double sigloi should be the same, cannot be taken as a mere coincidence. It, therefore, appears that the *śatamāna*, which was first a piece of gold of fixed weight and later of silver, both weighing 100 rattis or 175 gr., was found by the Indian subjects of the Persian empire to conform to the standard of their overlords. The Persian silver coins which were already circulating in the adjoining region to the north-west appear to have been imitated by the Indians in Gandhāra (Punjab). This is now corroborated by the evidence from recent excavations in Iran.

In the excavation at Nush-i-Jan near Malayir was found a hoard of objects in a bronze bowl buried under the floor level of a structure which can be, according to A.D.H. Bivar, assigned on the basis of stratigraphical and other evidence, to the period of the Median kingdom during the seventh century B.C.¹ Among the contents of the hoard were a few bar ingots of silver of which only three were intact. Such bars have not so far been reported from any other site in the eastern Mediterranean region. These bars bear a striking resemblance to the earliest Indian coins which are known as bent bars. But the specimens from Nush-i-Jan hoard are simple bars; they do not bear any stamp or mark of the issuing authority in sharp contrast to the Indian bent bars which are usually stamped with the six-armed solar or wheel symbol. Such bent bars, twelve in number, were found in the Chaman Huzuri (Kabul) hoard in Afghanistan which has been dated to about 380 B.C.² The typical Indian punch-marked coins

1. Bivar, A.D.H., 'A Hoard of Ingot Currenecy of the Median Period, from Nush-i-Jan. Near Malayir', *Iran*, 9, pp. 97-111.

2. Bivar, A.D.H., 'The Chaman Huzuri Hoard : Counter-marked Greek Flans as the Proto-types of Indian Punch-marked Coins', *Numismatic Chronicle*, 15, pp. 163-72.

were conspicuously absent in this hoard. It is significant that the bent bar coins have usually been found in those regions which once formed part of the Achaemenid empire.

Here Dhavalikar juxtaposes the fact that the bent bars are the earliest coins and PMC begin to appear slightly later though not later than the fifth or fourth century B.C., as the evidence from excavations demonstrates. According to Bivar, the unstamped Median bar currency of the seventh century B.C. was replaced slightly later in the early fifth century B.C. by small oblong pieces of silver which obviously were cut off from the bar ingots. Gradually all the surviving 'bar ingots' in eastern Iran were also reduced to 'cut silver' and the latter in turn to smaller and smaller pieces. In course of time the cut silver currency became more widespread in the Achaemenian territory.

Dhavalikar feels that we may visualize a very similar process in India too, first in the north-western regions of the sub-continent where bent bar coins were current, and then in other parts. "The bar currency must have been found to be not only cumbersome to handle but also difficult for smaller transactions. In India, therefore, pieces of silver cut off from such bars may have been issued by the authorities. It were these pieces of silver, either rectangular or oval or irregular in shape, which were stamped with symbols, and they are the true punch-marked coins of India. It appears that the bent bars were current only for a very brief period some time in the first half of the fifth century B.C. or even earlier, for they have been identified as the silver *śatamānas* of 100 *rattis* referred to in the later Vedic literature. ...Soon after in the fifth century, the punch-marked coins appear and in a very short time become current almost all over north India, more particularly in the Gaṅgā valley as the evidence from several excavated sites shows. Thereafter punch-marked coins begin to occur in eastern and central India and slightly later in western India as well." (*World Archaeology*, VI, 1975, No. 3, p. 336.).

Dhavalikar also sees the impact of Iran in the word *kārshāpaṇa*. According to him, it is a reduplicated form in which the same idea is

expressed twice, using two different words. The *karsha* was a Persian weight standard and *paṇa* the Indian weight standard. The early Indian copper coins which have been identified as of the *paṇa* class weigh 80 rattīs, or 146.4 gr. They, however, were current in those areas where silver currency was not in use. As Rapson observes (*BMC, AWK*, 1908, p. clxxix), ‘‘We may gather both directly from the statement of the law books and more generally from the study of coins that in ancient India silver and copper coinages were often independent of each other and circulated in different districts. A copper currency was not necessarily regarded as merely auxiliary to the silver currency; but a copper standard prevailed in some districts just as a silver standard prevailed in others.’’

V.S. Pathak

In his Presidential Address to the 68th Annual Conference of the Numismatic Society of India (published in *JNSI*, XLIII, i, 1981, pp. 1-18) V.S. Pathak undertook a semantic and etymological study of some numismatic terms such as *mudrā*, *rūpa*, *sikkā*, *nishka*, *viśvarūpa*, *śatamāna*, *karsha*, *paṇa*, *āhata* and *ṭaṅka*. As he claims, from his study a few interesting facts emerge which throw light on the origin of Indian coinage as well. According to Pathak’s study, ‘‘In the second millennium B.C., there was a cultural intercourse between India and the Semitic countries as revealed by *mudrā-muzrā* and *nsc-nishka* series of words, and this contact was responsible for the introduction of the pre-numismatic stage when gold ornaments became the symbols of value and status.

‘‘*Śatamāna* takes us to the next pre-numismatic phase when a well defined system of weights had come into existence. With *śatamāna* assuming a definite shape and weight, the stage was set for the appearance of *numisma*.

‘‘A study of the root *paṇa*, to sell, indicates the development of mercantile economy which served as a catalytic agent for the induction of the numismatic age. Again *karsha* reveals India’s contact with the Semitic countries. *Karsha* and *paṇa* envisage a new standard of weights.

Rūpya emphasizes the growing popularity of silver. *Rūpa*, in its third stage of semantic development, had acquired the meaning of a design carrying the authoritative sanction. It heralded the appearance of *numisma* on the scene. Around this time or a little later, *siktā* seems to have migrated to Syria and in the course of development became a *sikkā*.

‘*Āhata* indicates the continuity of the method of casting and *ṭaṅka* introduces a new method of coinage, to wit, punching, which subsequently developed into die-striking.’ (p. 17).

Joe Cribb

An important contribution to the study of the antiquity and origin of Indian coinage was made by Joe Cribb in the form of his papers ‘Investigating the Introduction of Coinage in India — A Review of Recent Research’ (*JNSI*, XLV, 1983, pp. 80-101) and ‘Dating India’s Earliest Coins’ (*South Asian Archaeology*, 1983, Naples, 1985, pp. 535-51). In these papers he has discussed historical methodology that has been used over the last few decades for establishing when and under what influence India’s first coins came to be made and has also given his own views on the subject. He has classified the methods used for this purpose into three categories — literary, archaeological and numismatic.

According to Cribb, the conclusions one can draw from the use of literary sources are very meagre. Cribb feels that all these methods have not been properly used by scholars. That explains how they claim such widely differing dates for the origin of coinage in India. Archaeologists such as Ray (*SP, PMC*, p. 37) suggest c. 500 B.C. as the earliest date for Indian coins, scholars of literature such as Shastri (*ibid.*, p. 116) appear to find reference to coins in texts dated c. 1000 B.C. and numismatists such as P.L. Gupta (*ibid.*, p. 4) claim that coinage first appeared in the early 7th century or even 8th century B.C. Cribb points out that in order to make use of literary evidence in the attribution of particular coins to a particular date it is necessary to be certain that the objects being mentioned in the literature are coins and not uncoined metallic currency. It is also necessary to be certain of the date of the literary source.

that it does not contain material added at a later period. Altekar and others have shown beyond doubt that the metallic currency referred to in the *Vedas* and many other early religious texts is not coinage, but either the metallic jewellery which was used for transferring or storing wealth or the weighed amounts of precious metal as a means of exchange etc. We should remember that when a coinage is based on the use of weighed pieces of metal and the names of the weights and of the coins are the same, the mention of a weight in a particular text by such a name cannot be used as evidence for coinage.

Only two Sanskrit texts of significant antiquity, Cribb points out, the *Arthaśāstra* of Kauṭilya and the *Aṣṭādhyāyī* of Pāṇini, have been put forward with confidence and consensus as referring to the punch-marked coins. But Pāṇini's references to metallic currency do not contain any descriptions of coin production or management; they only indicate the value and purchasing power of certain units of gold and silver. Cribb argues that modern scholars are inclined to accept that Pāṇini was referring to coins in these cases because his earliest commentators showed the same inclination. Now, there can be no doubt that when Pāṇini's commentators wrote coins were already in use; his commentators, such as Patañjali (whom Cribb places in the first century A.D.), therefore, applied this terminology to the form of money they knew. Pāṇini makes the statement (V.2.120) that a 'form' (*rūpa*) when 'stamped' (*āhata*) or when 'praise-worthy' (*praśamsa*) takes the ending *ya* (i.e. *rūpya*). His commentators being familiar with coinage which was made by striking, immediately saw in this a reference to coinage they knew and stated that when a coin (*dīnāra*) was stamped (*āhata*) it could be called 'rūpya', i.e. 'formed', etc. (V.S. Agrawala, *JNSI*, XV, pp. 27-41). But when Pāṇini's statement is examined in its own context, only this much can be said that he was familiar with the fact that a 'form' could be made by striking — something known long before the invention of coinage in most parts of the world. Whether Pāṇini was familiar with coins or not, his *Aṣṭādhyāyī* does not specifically states.

The *Arthaśāstra* of Kauṭilya, on the other hand, provides clear evidence of the manufacture, issue, etc. of early coins but, insists Cribb, there is no certainty as to when this evidence concerning coins was included in the text. Cribb reminds us that the traditional attribution of the *Arthaśāstra* to the Maurya period is much contested and it is possible, as Trautmann has shown,¹ that it contains later material (possibly even of several centuries later).

There are many references to coins in the Buddhist *Jātakas* also, but the anecdotal nature of these texts and the manner of their transmission by oral tradition prevents any chronological conclusions being drawn from such references, which did not assume their present form until a much later date.

The second method for determining the antiquity of Indian coinage is archaeological. Here Cribb insists that chronological data derived from archaeological strata, associated artefacts and C-14 method should only be used for dating by application of the *terminus ante quem* thereby derived. Even though the evidence shows that coins were introduced at a date subsequent to c. 500 B.C., this is only a *terminus post quem* and does not show when the event happened. The earliest *terminus ante quem* derived from archaeological evidence obtained in this way is only c. 200 B.C. The other dating method available to archaeologists can only be used when a definitely datable object is found associated with punch-marked coins in such a way that one can be certain that they were deposited together. The only occasion when this has happened with punch-marked coins are the hoards from the North-West of the sub-continent which contain punch-marked coins deposited with datable Greek coins. The earliest of these hoards, the Chaman Huzuri hoard, is important as the earliest absolutely datable context for punch-marked coins. The hoard contained a number of 'bent bar' coins, a form of punch-marked coins local to the North-West of the sub-continent,

1. Trautmann, T.R., *Kauṭilya and the Arthaśāstra*, Leiden, 1971, pp. 5-7.

particularly Gandhāra, together with a large group of Greek coins and another group of locally made copies of Greek coins. The hoard can be given a precise *terminus post quem* because it contained a barbarous copy based on an issue of Athenian coins which began in the 390s B.C. Recent opinion dates the striking of the barbarous copy in the hoard to the 360s B.C. on the basis of another example being found in a hoard of Babylonian coins deposited in the 340s B.C. The other hoards associate silver punch-marked coins with Greek coins issued in c. 317 B.C., c. 240 B.C. and c. 180 B.C. Thus, ‘the only chronological conclusions that can be drawn from the archaeological evidences are that coins probably existed in India by 360 B.C. and that the two literary sources (the *Ashtādhyāyī* and the *Arthaśāstra*) pointing to the same conclusion are possibly accurate.’

Numismatic evidence used in the dating of coins is of two kinds, internal and external. Unfortunately the designs of India's earliest coins provide no evidence of datable nature. Attempts have been made to link particular punch marks with the Mauryan emperors, Chandragupta and Aśoka, whose approximate dates are known, but these attributions are by their nature purely conjectural. Pioneers, such as Durga Prasad, and later P.L. Gupta and Mitchiner (Durga Prasad, *JASB, NS*, 1934, XLV, No. 317, pp. 5-6; 1937, XLVII, No. 343, pp. 51-92; Allan, J., *op. cit.*) and many other numismatists, have been at work describing and classifying the punch-marked silver coins, so that it has been demonstrated beyond doubt that the punches were applied to the coins according to definite procedures. Cribb points out that by utilising evidence, such as the association of coins with different punches in hoards, the examination of coin-wear within hoards, the identification of weight standards, the local nature of some issues, the development of punch types and flan manufacture, it is now possible to detect many previously unsuspected facts about the coins. Three phases of coinage may now be defined : (1) an early phase of local coinage; (2) a middle phase of a national coinage; and (3) a period of degeneration of the

national coinage giving rise to some local issues. Within these phases development in weight standards, flan making technology and in the organisation of punch designs and application have been established so that the approximate position of any one coin within the period of issue of the punch-marked silver coinage can now be suggested with some confidence. This is a major advance on the form of classification available to those such as Durga Prasad and Allan who pioneered these techniques.

Several scholars have applied external numismatic evidence by two different methodological approaches in an attempt to develop an absolute chronology from relative chronology.¹ The Chaman Huzuri hoard with a *terminus post quem* of c. 360 B.C. contained punch-marked coins of only one type issued during the first phase of locally issued coins, as defined by the work on relative chronology. Two hoards found at the ancient site of Taxila in Pakistan contained coins of the middle phase of national coinage. The earlier of them has a *terminus post quem* of c. 323 B.C. as it contained a silver coin of the Greek king Philip III Arrhidaios (323–317 B.C.; of the Babylon mint) and two earlier Greek coins. But these three hoards, although they give us clear *termini post quem* of their deposit, do not tell us how they were assembled or how long after those *termini* they were deposited.

Another method used to make absolute the relative chronology of the silver punch-marked coins which has now been constructed is to match it to the pattern of known historical events in ancient India. P.L. Gupta (*SP, PMC*, pp. 1–18;) and M. Mitchiner (*op. cit.*) are the foremost proponents of this approach. This method links together three separate techniques of dating.

The first technique is closely related to that used by Kosambi outlined above. The date c. 317 B.C. for the deposit of the earlier Taxila hoard is accepted without question and because the Indian coins in it

1. Gupta, P.L., *The Amarāvati Hoard of Silver Punch-Marked Coins*, Hyderabad, 1963; Mitchiner, M., *The Origins of Indian Coinage*, London, 1973; also *supra*.

show wear, it is presumed that they were issued prior to the date of the deposit of the hoard. It is also presumed that the least worn issues in the hoard were made in c. 317 B.C. and are, therefore, attributable to Chandragupta Maurya.

Using this as their starting point, a time-table for the whole silver punch-marked coinage has been worked out by the proponents of this method. It is argued that the national coinage which pre-dates the deposit of the earlier Taxila hoard should be apportioned to the rulers of the Magadhan empire named in Paurāṇika, Buddhists and Jaina texts and that the local coinages of the earliest phase should be attributed to the states which preceded the Magadhan empire on the basis of whichever states' territory they have been found in. In this way the earliest series of the national coinage is attributed by both Mitchiner and Gupta to the period of Ajātaśatru (c. 493-462 B.C.) and local coinages have been attributed to other states such as Kosala, Vatsa, Gandhāra, Kalinga, etc. before Ajātaśatru and his successors drew them into their empire, and to Magadha itself. Unfortunately, Cribb points out, there is no hard evidence to uphold these suggestions. Because a hypothetical explanation of historical events offers a logical framework, it does not follow that it must be the correct one. It cannot be presumed that changes in coin designs, weight standards and minting technology accompanied changes in the political situation. No sources either literary or inscriptional provide information about the political organisation of coinage production and distribution in ancient India. The assumption is that as Magadha drew the neighbouring states into its empire the national coinage was introduced to replace a pre-existing local coinage. But, he argues, there is no evidence at all that while they were carrying out this process, Ajātaśatru and his successors were issuing coins. Furthermore, present-day knowledge of the administrative organisation of the Magadhan empire does not provide any information on the regional administration of currency. An equally plausible hypothesis could be that the Magadhan emperors allowed their provincial administrators complete freedom in currency matters and

coinage issue and that the local coins were issued as a result of this licence. Therefore, the evidence is not available for making any chronological conclusions about the local punch-marked coinages on the basis of such a methodology.

In the opinion of Cribb, the Gandhāra coins show all the features of the earliest phase of coinage in the Gangetic area. So it can be suggested that the features of all the Gangetic coins could have been derived from the Gandhāra coins. The reverse could also be suggested but that does not concur with the evidence. While the Gandhāra coins can themselves be shown to have been derived from another form of currency, known from the Chaman Huzuri hoard, in the Gangetic area no silver currency pre-dating the earliest phase of coinage is known. The weight standard used by the Gandhāra coiners was also derived from the local copies of Greek coins. The standard adopted for the Gandhāra coins for more than half of the copies was the Persian shekel of c. 12 grammes. The Nush-i-Jan find¹ has also shown that the use of unstamped bar shaped silver ingots was also peculiar to the Persian sphere of Central Asia. Dhavalikar² has already suggested that the bent bar coins were derived from this Iranian monetary practice. Allan³ also pointed out that the bent bars were struck on the Iranian standard, as double the weight of the silver coins struck by the Persian empire. Furthermore, the discovery of contemporary forgeries of Gandhāra local coins at Kauśāmbī⁴ provides confirmation that these coins were available as prototypes in the Gangetic area.

Thus, Cribb concludes, it is clear that the Gangetic local coinage could be derived from the Gandhāra local coinage, but it is not possible

1. Bivar, A.D.H., 'A Hoard of Ingot Currency of the Median Period from Nush-i-Jan Near Malayir', *Iran*, London, 1971, Vol. 9, pp. 97-111.

2. Dhavalikar, M.K., 'The Beginning of Coinage in India', *World Archaeology*, London, 1975, Vol. 6, No.3, pp. 330-38.

3. Allan, J., *op. cit.*, p. 16.

4. Mukherjee, Dolly, 'Copper Bent Bar Coins in the Indian Museum, Calcutta', *JNSI*, XLI, Pt. i, pp. 1-8.

for the reverse to be postulated. It is possible to use this evidence to demonstrate a family tree of these coins which points to the Gandhāra local coins as the founder of the line and to indicate the founder's parentage in a marriage between Greek coinage and Iranian bar currency. The Chaman Huzuri hoard now gives some indication of the date when coinage was first made in India. The Greek coins in the hoard show that it could not have been deposited before the 390s B.C. and was probably deposited later than 360 B.C. The proportion of punch-marked coins in the hoard shows that they were probably current along with the Greek and local imitation coins at the time of the deposit of the hoard. The evidence of this hoard, therefore, shows that the punch-marked coinage of India had originated by the mid-4th century. The contents of the hoard do not give any indication of how long before this date the event took place. P.L. Gupta has suggested that because some of the Greek and Persian coins in the hoard might be 6th century issues, so may be the Gandhāra coins; but neither his attributions of the Greek and Persian coins, nor his disregard of the *terminus post quem* of the hoard is convincing. The only evidence of chronological value that we can deduce from the hoard is that which was already available to Quintus Curtius in the 1st century A.D. Rome, i.e. the Indians already had punch-marked silver coins when Alexander arrived in their territory.

The evidence of the Chaman Huzuri hoard for the date of the Gandhāra local coins and the finding of imitations of local Gandhāra coins in the Mauryan level at Kauśāmbī as dated by its association with Aśokan pillar also suggest a late 4th century B.C. date for the earliest Gangetic local coins struck in four denominations. Dhavalikar has expressed surprise over the fact that 'a fully fledged silver coinage was introduced suddenly into India', whereas all the ancient religious texts only refer to the monetary use of gold. According to Cribb, it is easy to explain this 'surprising' fact by showing that the whole concept of the monetary use of silver was introduced from Iran. Now one can easily say with John Allan, Cribb concludes, that 'the idea of a coinage came to

India in the ...fourth century B.C. from Achaemenid territory, being suggested by the *sigloi* (i.e, Graeco-Persian coins)'

B.N. Mukherjee

In 1989 B.N. Mukherjee published a significant paper on the origin and antiquity of coinage in India in *JNSI*, LI (pp. 39-47). Distinguishing between currency (represented by pieces of valuable metal of definite weight but without the mark of issuing authority) and money (such pieces with marks and/or legends of the issuing authority) he opines that the silver pieces of definite weight found at Mohenjodaro belonged to a metallic 'currency' system. They themselves cannot be considered as weights as their shapes were not conducive to their use as such. He points out that silver objects in substantial quantity have been found only at Mohenjodaro and Harappa. The data indicate that the chief (if not the only) source of supply of silver to Mohenjodaro or Harappa was somewhere outside the sub-continent. The above noted silver piece bearing cuneiform characters must have been imported from Mesopotamia, where the relevant script was in use and with which the Indus merchants had trade contacts.

Thus, it appears that in the last phase of the Indus civilization metallic currency was introduced in the sub-continent, probably inspired by a Mesopotamian system and with the help of imported silver, but the pieces of metallic currency were prepared following Indus weights and not, as apparently thought by K.N. Dikshit, any Babylonian weight system. Even if the piece bearing cuneiform characters was a piece of metallic currency following a non-Indian weight standard, it was certainly an import from outside and not a part of the Indus metallic currency system. Kosambi was also wrong in connecting only three pieces to a class of weights used in the Indus civilization.

Use of gold pieces struck on a definite weight standard is indicated by the texts of the Later Vedic period. The *Śatapatha Brāhmaṇa* refers to 'gold (pieces) of a hundred standard' (*śatamānāni hiraṇyāni*). Another passage of the same text may allude to silver as well as gold pieces 'of a

hundred standard'. But there is no evidence that the pieces of metallic currency were used even in the Later Vedic age as coins.

The first indication of minting of coins in literary sources is provided by the *Aṣṭādhyāyī* of Pāṇini, who may be placed between c. 600 B.C. and 325 B.C. with the probability of his living in the earlier half of this period. One shall have to admit the feasibility of the employment of the term *rūpya* as indicating 'a stamped coin' in his *Aṣṭādhyāyī*. This evidence receives some support from the statement of Quintus Curtius according to whom Omphis, the King of Taxila, presented Alexander and his friends a gift 80 'talents of marked silver' (*signati argenti*). Further corroboration for this comes from archaeology, for the earliest strata yielding coins in excavations in the Indian sub-continent are datable to the period beginning from c. 600 B.C. This evidence cannot prove the existence of Indian coins in the 6th century B.C. But it certainly indicates that the date of the innovation of Indian coinage may not be placed earlier than c. 600 B.C.

Thus, literary and archaeological sources broadly agree in placing the innovative period of Indian coinage in the 6th-5th century B.C. (or between c. 600 and 325 B.C.?). We cannot be more precise on this point in the present state of our knowledge. Since the *śatamāna* seems to have been the most popular unit of weight followed by the pieces of metallic currency of the Vedic age, it would have been natural for the first coins to be struck on that standard. In fact, the Chaman Huzuri hoard, which is the earliest known treasure-trove including Indian coins, has yielded bent bar coins and some other circular(?) pieces which can be accepted as struck on the standard of *śatamāna* or one of its sub-multiples. Their manufacturing techniques (dropping blank, punching on cast metal, etc.), weight and the symbols punched on them, do not betray any fundamental influence from outside sources. This inference, however, does not deny the peripheral or superficial outside influence betrayed by the shape of the bar coins (popular in Gandhāra and nearby areas) or by the practice of striking or counterstriking a device on a substantial or

the greater part of the reverse of some circular and saucer-shaped coins bearing a type on the greater part of the obverse. The shape of the bent bar coins might have felt the impact of the bar-shaped silver ingots current in Iran.

But neither the bar-shape nor the system of having two 'full' devices on both sides had any impact on the pre-Mauryan local series outside the North-West or on the earliest Indian coinage as a whole. The vast majority of the symbols on early Indian coins (including punch-marked pieces) can be traced to indigenous sources. Several of the symbols on the punch-marked pieces have been found even on Indus seals. (*Journal of the Royal Asiatic Society of Ireland and Great Britain*, 1935, p. 3051).

Thus, concludes Mukherjee, 7th-6th century B.C. probably provided the first real and compelling opportunities for the emergence of coins in the Indian sub-continent. It did emerge in all probability by the next century (6th-5th century B.C.). If the Achaemenid empire had its bi-metallic currency by that time, it was merely coincidental. The currency system in the Achaemenid empire did not inspire the introduction of coinage in India, though peripheral influence from the 'west' on the Indian coinage in its very early stage cannot be ruled out.

S.R. Goyal

In 1994 S.R. Goyal published his *Indigenous Coins of Early India* from Jodhpur.¹ In its Ch. IV (pp. 52-76) he has discussed the problems of the origin and antiquity of coinage in India. As regards the origin of the Indian coinage, he believes that PMC, the earliest coins of India are Indian in origin and character and, therefore, he feels no necessity whatsoever to assume that Indian coinage came into existence as a result of foreign impact. But he is ready to admit that "some minor elements of Indian coinage were inspired by foreign influence. Of this only some vague indications are now available." For example, the term *karsha* (the first part of the term *kārshāpaṇa*) or *karshin* is used to denote a unit of weight

1. Later reproduced in his *The Coinage of Ancient India*, Jodhpur, 1995.

in the Achaeminid records. In India also, Manu defines *kārshāpaṇa* as a *paṇa* of one *karsha* in weight. It is obvious, therefore, that the term 'karsha' was either a part of common Aryan heritage (of which there is no evidence) or was borrowed by Indians from Persians when North-West India was under Achaeminid rule (which is obviously likely). It is true that the weight of one *karsha* in India differed, but the fact that the terms *karsha* and *kārshāpaṇa* are unknown to the Vedic literature proves that the Iranian term 'karsha' was affixed to the Indian term '*paṇa*', a word known to the Brāhmaṇa literature as meaning 'to barter, purchase, buy' and probably having affinity with the term 'Paṇi' of the *R̥gveda*.

Here it may also be recalled that the word *māna*, used in the Vedic literature in the sense of a weight may be a descendant of the Babylonian term *mīnā* as it is undoubtedly the ancestor of the Hindi word *mana* (a weight equivalent to 40 sers). Actually, the possibility of some Babylonian influence on PMC cannot altogether be ruled out. Of course Kennedy's view that PMC owed its origin to the Babylonian shekel is untenable, for PMC are distinctly Indian in character, but it can hardly be denied that the Babylonian/Persian influence might have been one of the minor factors which helped Indian coinage to take a definite shape during its transition from 'the age of metallic pieces of well-known weight' to 'the age of coinage proper'.

In this connection Goyal also takes note of the evidence of the data provided by the Nush-i-Jan excavation in Iran. Here he has followed Dhavalikar closely.

Goyal is also critical of those scholars who have tried to prove the existence of a gold currency in India in the Early Vedic age (D.R. Bhandarkar) or the Later Vedic age (A.S. Altekar). He argues that in this whole period our economy mainly depended on agriculture and local trade; hence it could not sustain and did not need a gold currency. So far as archaeological evidences go, the N.B.P. economy lacked the affluence of other contemporary cultures of the Middle-East and the Mediterranean regions. Gold appears to be quite scarce in India before the early centuries

of the Christian era. The treasure-trove finds as well as excavated materials tend to show that gold, though not entirely unknown, was a scarce metal in the pre-Kushāṇa age. Most of the ancient gold objects found in India (gold coins, gold caskets, gold beads, gold ornaments, etc.) belong to the early centuries of the Christian era. These were more or less a new feature in Indian economic life and testify to the prosperity not experienced before. It was evidently the result of India's favourable trade with other countries. It is only at Taxila that gold objects of pre-Kushāṇa period are found in some appreciable numbers but they are almost entirely Greek or Graeco-Roman in character. The question of the existence of a gold currency in the Vedic age in particular and of the antiquity of gold coinage in India in general should be viewed against this background, Goyal insists.

Archaeologically the oldest gold coins of India issued by indigenous rulers are those of the imperial Guptas, excluding a few rare gold PMC.¹ Before the Guptas the Kushāṇas issued copious gold coinage. Earlier still the Persians struck gold darics and three Bactrian Greek kings — Diodotus I, Diodotus II and Euthydemus I — and two Indo-Greek rulers Eucratides I and Menander are known to have issued gold coins; but as argued by S.C. Ray (*JNSI*, XXX, pp. 110 ff.), there is no evidence to show that they were ever meant for circulation in their Indian territories. None of these gold coins is bilingual and they are found only rarely; Taxila has yielded only one specimen. Probably these coins were issued for western trade of the people of the territories north of Hindukush. Here it is interesting to note that according to Herodotus the Indian satrapy paid to the Achaemenids a tribute in gold dust (not in coins) and the king of Taxila paid Alexander 'coined silver' and not 'coined gold'. All these facts indicate the absence of gold currency in India in any period before the age of the Kushāṇas.

1. One has been mentioned in *JNSI*, XXXIV, i, p. 101 and two in *ibid.*, ii, pp. 1 ff. One is also noted in Allan's *Catalogue*.

✧ Romila Thapar

In the revised edition of her *Aśoka and the Decline of the Mauryas* published from Oxford in 1997, Romila Thapar wrote an 'Afterword' in which she has given her opinion on certain problems of the Maurya and pre-Maurya periods. Here on the question of the beginning of coinage in India she observes : "General opinion however still adheres to the sixth century B.C. as the start of coinage. In any case they would have been in circulation prior to the Mauryas. The symbols on the coins are suggestive of an indigenous origin although the notion of coined metallic money was probably known from West Asian usage. Pre-Mauryan literary evidence, with the exception of Pāṇini, does not confirm the use of coins, but is familiar with using weights of gold and silver with a designated value. Punch-marked coins would have increased in number with the greater availability of silver and this may have required close connections with West Asia and Afghanistan, apart from the more sporadic mining in the sub-continent. ... The date should be determined by dated coinage in the Chaman Huzuri hoard and by the reference to Alexander receiving talents of marked silver. An examination of the symbols suggests that there were local issues of varying weight which are rare in northern India and national issues with a standard weight found all over the sub-continent. The coins were developed in the north-west and were imitated in the Ganges towns. However, the pre-Mauryan use of coins is suggested in other sources. The Nandas are said to have standardized weights and this is likely to have included coins. Coins were a familiar item to Pāṇini, which would date them to at least the fifth century." (pp. 288-89).

Summing Up

Thus, we observe that the historiography of the problems of the origin and antiquity of coinage in India has passed through several phases. As regards the antiquity of coinage in India now there is probably no scholar who would agree with D.R. Bhandarkar that coins were prevalent in India in the Early Vedic age (c. 2500 B.C.) though some, such as A.M. Shastri, have no hesitation in pushing back the antiquity of Indian coinage

to c. 1000 B.C. and thus supporting what Cunningham had suggested long ago. Most numismatists now agree with the view that though metallic pieces of fixed weight might have been in circulation in the Later Vedic age, coinage proper originated in India in the sixth-fifth centuries B.C. (or a little earlier or a little later). Being supported by archaeological evidence most of them feel safer with a date in the vicinity of 500 B.C. Only Joe Cribb has argued for a date in the early fourth century B.C.

As regards the origin of Indian coinage, now most scholars subscribe to the theory of indigenous origin though some still believe that Babylonian/Persian influence might have been one of the minor factors which helped Indian coinage to take a definite shape during its transition from the age of metallic pieces of definite weight to the age of coinage proper. Only Joe Cribb still gives full credit for this transformation to Iran.

Chapter Two

The Punch-marked Coins

Since nineteenth century the punch-marked coins have been a subject of study of a large number of articles, and quite a few books, monographs and chapters on numismatic works deal with them. Several catalogues of PMC of various hoards and museum collections have also been published. They have been the subject-matter of even some doctoral dissertations. But so far, to the best of our knowledge, only one article deals with their historiography in which its author A.N. Lahiri has made a selective study of the writings of noted scholars.¹ Here we propose to treat the subject afresh filling up some lacunae left in the article of Lahiri, and also adding information on the progress of the PMC studies since 1987, the date of the publication of his article.

Early PMC Studies

(The term 'punch-marked coin' generally refers to the earliest available Indian coins, which are largely in silver, with a few in copper as well.² They are found in various shapes, sizes, and weights. They were in vogue when writing was not current in India or was rarely used. The PMC, therefore, are not inscribed; instead they have a pre-determined number of symbols punched on them. In fact, symbols are the most conspicuous feature of these coins, and it is to their study that scholars have devoted

1. Lahiri, A.N., *JNSI*, XLIX, 1987, pp. 55-62.

2. According to A.L. Basham (*The Wonder that was India*, London, 1967, p. 507), only one gold PMC is known. However, see Goyal, S.R., *Indigenous Coins of Early India*, (henceforth *ICEI*), Jodhpur, 1994, pp. 36, 64.

their greatest attention) However, early Western numismatists could not understand their significance. Further, their obsession with the view that Indians could not develop an indigenous coinage vitiating their outlook towards these archaic coins of India. For example, Prinsep, who was one of the pioneers in the field of Indian numismatic studies, believed that the Hindus 'derived their knowledge of coinage from the Greeks of Bactria'. Wilson also held that the Hindus learnt the usefulness of money from the Bactrian Greeks and from their commerce specially with Rome. On the other hand, James Kennedy thought that PMC were copied from Babylonian originals as a result of the active maritime trade between India and Babylon in the sixth century before Christ. C.W. King also believed that 'inhabitants of the Indian Peninsula derived the use of coined money from the Greek subjugators of Bactria...'. However, later on at least Prinsep came to the right conclusion that these archaic Indian coins were older than the Graeco-Bactrian coinage.

Significant advance in the study of PMC was made in the last decade of the nineteenth century. With W. Theobald started the era of scientific study of PMC symbols.¹ He described these symbols minutely, illustrated them and interpreted them in the light of his findings. He came to the conclusion that some of them are "definitely Śaivite, others Buddhist, others planetary, others related to Aryan mythology and all, or the majority at least, devoted to some esoteric allusion." He classified them under six heads : (1) human figure, (2) implements, (3) animals, (4) trees, branches or fruits, (5) solar, planetary or Śaivite symbols, and (6) miscellaneous and unknown marks. He believed that (1) five symbols is about the average number on the obverse, and not more than two on the reverse, and (2) the impression are less distinct on the reverse, and reverse 'punches' or symbols are frequently smaller.

A. Cunningham and E.J. Rapson

However, it was Sir Alexander Cunningham who first made a systematic

1. *JASB*, 1890, p. 195.

study of PMC. As the first Director-General of the Archaeological Survey of India, he made extensive tours all over the country, and published the results of his explorations in the *Archaeological Survey Reports*. In 1891 was published his *Coins of Ancient India*. He handled some five to six thousand (silver) PMC, apparently mainly of the common square *kārshāpana* type, “which are found all over the country from the Himalaya Mountain to Cape Comorin, and from Siestan to the mouths of the Ganges.”¹ He believed that these coins were not in any way influenced by foreign issues. “The Indian monetary system,” he asserted, “was essentially original, as it differed from the Greek and from all other systems, in its unit of weight, as well as its scale of multiples.... Its nomenclature also is quite different and the common form of the money is not round but square. Altogether the differences are so marked that I have no hesitation in stating my conviction that the Indian monetary system is the original invention of the Hindu mind.” His view on the fabric of PMC indicating general sequence was very sound. “The earliest specimens”, he opined, “are generally thin and broad, and of irregular shape. Some are oblong, and some are nearly round ; but all light in weight, and are usually very much worn”.² As regards their age, he observed: “How old these punch-marked coins may be, it is difficult to say. They were certainly current in the time of Buddha, that is, in the sixth century B.C. But I see no difficulty in thinking that they might mount as high as 1000 B.C.”³

But the observations of E.J. Rapson on PMC in his small book *Indian Coins* published in the same year, were not as sound as those of Cunningham. He no doubt supported the indigenous origin of PMC,⁴ but also asserted that they are little more than weights of metal, on which was stamped from time to time the symbol of the authority responsible

1. *CAI*, p. 19.

2. *Ibid.*, p. 43.

3. *Ibid.*

4. *Indian Coins*, 1891, p. 4.

for their correctness and purity.¹ Later, in 1916, he made another curious statement about these symbols : “The symbols punched on these coins on the *obverse* are supposed to be the private marks of the money-changers, while those on the *reverse*, which are almost invariably fewer in number and of a somewhat different character, may possibly denote the locality in which the coins were issued.”² As regards the antiquity of these coins, he opined that the oldest of them “are probably as early as the beginning of the 4th century B.C.”³

D.B. Spooner, V.A. Smith and A. Foucher

In the early years of the twentieth century D.B. Spooner and V.A. Smith made significant contributions to the PMC studies. In his *Annual Report of the Archaeological Survey of India*, 1905-06, Spooner published 61 silver PMC of the Peshawar hoard. On their basis he observed that so far as the obverse and reverse symbols of these coins are concerned, there was “an invariable concomitance established between a particular group of symbols on the obverse and a particular ‘mint-mark’ on the reverse, which cannot conceivably be lacking in significance and which points decidedly to these coins having been the regular coinage of some accepted central authority, and the symbols or their selection the recognised insignia of the same, not the private marks of individual moneyers impressed haphazard from time to time.”

Spooner has associated certain symbols depicted on the punch-marked coins with Buddhism. But his explanation has not been generally accepted. Firstly, whether the significance of the symbols of the punch-marked coins is religious at all, is not certain. Secondly, on some coin specimens the depiction of these symbols, either collectively or singly, betrays unmistakably the influence of cults other than Buddhism also. This shows that it would be incorrect to say that all these symbols,

1. *Ibid.*, pp. 2,3.

2. Rapson, E.J., *Ancient India*, 1916, p. 151.

3. *Indian Coins*, p. 4.

whenever and wherever found would imply automatically the influence of the religion preached by the Buddha.¹

On the other hand, V.A. Smith, in his *Indian Museum Catalogue*, published in 1906, reiterated the view that “the punch-marked coinage was a private coinage issued by guilds and silversmiths with the permission of the ruling powers.” “The numerous obverse punches”, he opined, “seem to have been impressed by different moneyers through whose hands the pieces passed, and the reverse marks may be regarded as the signs of approval by controlling authority.”² However, Smith recognised the numismatic character of three obscure silver bent bars weighing 169, 165.8 and 174.1 grains as coins of a 100-rattī weight system.

In 1917 PMC symbols were interpreted as Buddhist symbols by A. Foucher.³ The elephant and the bull, which appear as symbols on these coins represent, according to him, the traditional symbols of Buddha’s conception and the Zodiacal sign of his birth, Taurus. But the suggestion was not accepted by J.N. Banerjea who pointed out that it would be going too far in the present state of our knowledge if we attempt to associate the symbols definitely with any one or the other of the various creeds of India.⁴

Durga Prasad, D.R. Bhandarkar and E.H.C. Walsh

In the first half of the twentieth century, apart from Spooner and Smith, researches on PMC were mainly done by D.R. Bhandarkar, Durga Prasad, E.H.C. Walsh and John Allan. Among the significant writings of Durga Prasad is included a small book titled *Observations on the Silver Punch-marked Coins of Ancient India and Their Age*. It was published in 1931. In this book he made a thorough study of PMC symbols, classified these coins and tried to determine their age. He dated the PMC to the Maurya

1. Cf. my paper ‘Buddhist Symbols and Buddha Image on Ancient Indian Coins’, *JNSI*, XLIX, i and ii, 1987, pp. 109-14.

2. *IMC*, p. 131 f.

3. Foucher, A., *The Beginning of Buddhist Art*, Paris, 1917, pp. 20 ff.

4. J.N. Banerjea in *Comp. Hist. Ind.*, II, ed. K.A.N. Sastri, Bombay, 1957, p. 778.

period on the basis of their symbols. He argued that the coins with the crescent-on-hill symbol, when tested chemically, appear to have the same alloy content as the amount suggested in the *Arthaśāstra*. Furthermore, a similar symbol occurs on the Sohagaura copper plate, the inscription of which is generally accepted as being of the Maurya period. That these symbols were not shroff marks is suggested by the *Arthaśāstra*. A passage in this text states that the coins were minted for the state for two purposes, for hoarding in the treasury and for use in commercial transactions. Thus, they would be punched by the state and there would be no necessity for shroff marks. Later Durga Prasad wrote two other valuable and exhaustive papers titled 'Classification and Significance of Symbols on Silver Punch-marked Coins of Ancient India'¹ and 'Observations on Different Types of Silver Punch-marked Coins, their Periods and Locale.'² In the first paper (1934) he refuted the view that PMC were private issues, pointed out to the similarity of PMC symbols with the pictographs of the Indus seals as well as the Tāntrika *mudrās* as described in the *Narasimhatāpanī Upanishad* and the *Kālivilāsa Tantra*, published for the first time all the three known series of 4-symbol tripāda-kārshāpaṇas, made a detailed study of the coins of the Golakpur hoard earlier published by Walsh and came to the conclusion that they are the earliest known coins of 32 rattī weight system with 5 symbols bearing chiefly the figure of the sun and a *chakra*. In the second paper (1938) he assigned various series of the early PMC to different ancient janapadas, e.g. Kāśī, Kosala and Magadha.

Another scholar, who made significant contribution to PMC studies in the pre-Independence period, was D.R. Bhandarkar. In the *Annual Report of the Archaeological Survey of India* (1913-14) Bhandarkar drew our attention to the oft-quoted passage of Buddhaghosha's *Visuddhimagga*, which describes how a lot of kārshāpaṇas, lying on a wooden slab would strike a boy, a villager or a shroff. The shroff after

1. NS, XLV, 1934, pp. N5 to N59, Pl. 1-32.

2. NS, XLVII, 1938, pp. N51 to N92.

examining the coins in various ways would decide which of them were struck at which village, mufassil town, capital city, mountain and river-bank, and also by which mint-master. On the basis of this passage, Bhandarkar suggested that the different places had their constant and regular groups of symbols or mint-marks peculiar to them. This interpretation of the symbols on PMC in the light of Buddhaghosha's testimony was indeed quite illuminating. Later on, in his *Carmichael Lectures on Ancient Indian Numismatics* (1921) Bhandarkar discussed in detail the nature and antiquity of the 32-rattī silver *kārshāpanas*, which are clearly identifiable with the *dharāṇa* or *purāṇa* of Manu.

Meanwhile E.H.C. Walsh, who worked on PMC for over three decades, was carrying on his researches on these coins. He, on the one hand, studied PMC of the British Museum¹ and, on the other, examined and published those of some famous hoards, including those found at Golakpur, Paila, Goroghat, Patraha, Bairat, Ramna and Machhuatoli.² He also made critical comments on them in John Marshall's *Taxila* (Vol. II, pp. 123 ff.). Incidentally, Marshall was in general agreement with Durga Prasad and Walsh that PMC symbols may be connected with the Indus seals. Walsh's study, classification and publication of the tripāda-kārshāpanas of the Paila hoard is notable while his re-study of the saucer-like adhyardha kārshāpanas put these coins in a new light.

John Allan

John Allan studied PMC collection of British Museum, and published them in his *Catalogue of the Indian Coins in the British Museum, Ancient India (BMC, AI)*, 1936. The Introduction of his *BMC, AI* (pp. i-lxxix), which discusses various aspects of PMC, is simply remarkable. He believed that "the idea of a coinage came to India in the late fifth or early fourth century B.C. from Achaemenid territory, being suggested by the sigloi, although its character is entirely Indian." (p. lxxi). This led him

1. *JBORS*, 1937, 1938, 1941.

2. *Ibid.*, 1919, 1939, 1940. He published Taxila hoards of 1912 and 1924 in *MASI*, No. 59 (1939).

to believe that the so-called bent bar or wheel-marked coins “were struck on a Persian standard and represented double sigloi or staters. ...” According to him, there is no evidence that coinage in India is older than the Nanda period, and the earliest finds from Paila, Set Mahet and Golakpur may indicate the region in which punch-marked coins originated. He conjectured that the tradition about the wealth of the Nandas may have arisen because they were the first dynasty to have issued coins on a large scale. Allan, like other numismatists, was most concerned with the symbols of PMC. He was convinced that PMC were issued by a government, because they appear to have been minted in regular series. For instance, the sun and the six-armed symbols are quite regular and may have been the symbols of a king and a high official. The variation of the symbols on the reverse is explained by its being the symbol of a district or local ruler. He made the ingenious suggestion that the five symbols on the obverse may represent five controlling organizations, possibly similar to the committees mentioned by Megasthenes. On the question of some coins bearing countermarks or what have been called shroff marks, he suggests that these may have been older coins which were re-issued. He also notes in this connection the testimony of the above-noticed *Visuddhimagga* passage, which tells us that the symbols conveyed a very definite meaning to the expert, “who knew at once exactly from where a coin was issued.”

Other PMC Studies of Pre-Independence Period

Among the significant contributions made to the study of PMC in the pre-1947 period, mention may also be made of a paper of T.G. Aravamuthan in which he published a unique series of 4-symbol *ardha-kārshāpanas* (?) known from the 1934 Sungavaram (Krishna District) hoard.¹ These thin silver coins of various shapes² bear four rather unusual symbols, one of which is generally repeated twice on each specimen.

1. *Transactions of the International Numismatic Congress, 1936.*

2. Cf. Lahiri, *op. cit.*, p. 160.

These were apparently local issues of the ancient Andhra country. He also brought to light another unique series of 5-symbol silver PMC of the 1940 homogeneous Bodinayakkanur (Madurai District) hoard.¹ These coins which bear 5 constant symbols on the obv. and an invariable mark on the rev., seem to be local ardha-kārshāpanas of the Pāṇḍyan country.² In the same year appeared G.M. Young's paper on bent bar or wheel-marked coins.³ This archaeologically oriented paper puts these remarkable north-western punch-marked issues in a proper historical perspective.⁴ A few years later, a unique series of 4-symbol tiny silver punch-marked coins of squarish shape coming from Sonapur (Orissa) was published by B.V. Nath.⁵ These coins, weighing between 19.2 and 21 grains, appear to be 1½ pādas of a kārshāpana current in ancient Kalinga country.

Post-1947 Period : D.D. Kosambi

Among the scholars of the post-1947 period, who made original contributions to the study of PMC, the name of D.D. Kosambi is very prominent.⁶ Kosambi was basically a scientist. He added a new dimension to the study of numismatics by applying statistical analysis to the mute PMC to determine their chronology and identification.⁷ This method is based on the idea that handling of a coin causes loss of metal which results

1. *JNSI*, VIII, 1946, pp. 1-9.

2. According to D.D. Kosambi, they are the issues of some late Maurya prince (*JBORS*, XXVI, 1950-51, pp. 214 ff.).

3. *Ancient India*, No. 1, 1946, pp. 27-32.

4. Lahiri, *JNSI*, XLIX, p. 161.

5. *Ibid.*, XV, 1953, pp. 54 ff.

6. Kosambi, D.D., *JBBRAS*, XXIV-XXV, 1948.

7. 'Study and Methodology of Silver Punch-marked Coins', *New Indian Antiquary*, 4, 1941, pp. 1-35 and 49-76; 'The Effect of Circulation upon Weight of Metallic Currency', *Current Science*, XI, 1942, pp. 227-30; *An Introduction to the Study of Indian History*, pp. 162 ff. Cf. Jha, D.N., 'D.D. Kosambi', in *Historians and Historiography in Modern India*, ed. S.P. Sen, Calcutta, 1973, p. 124. Also see Lallanji Gopal's Presidential Address, 'Numismatics : Its Historical and Scientific Context', *JNSI*, LIII, Pts. i and ii, 1991, p. 5.

in a loss of weight. Therefore, if the amount of weight lost in circulation can be measured, it may be possible to calculate the date of the coin. But this method may be regarded as valid only if the original weight of the coin is known. But in the case of PMC there is no certainty as to their original weight. Further, since the hoarding of coins was a common practice in those times, calculation of the date of a coin on the basis of erosion of its metal may not always be reliable. Although this method may roughly indicate the number of years during which a coin was in circulation, the date of the coin would still have to be determined by the consideration of other factors. Hence the use of this method did not result in any significant addition to our historical knowledge and it has not been applied to other coin series by the numismatists. Kosambi's suggestion that the Mohenjodaro weights were carried through Maurya period by the silver PMC also needs more investigation. He has also not said anything about the cast silver PMC, of which a large numbers are found in many hoards and museum collections. Nor has he said anything about the copper PMC. Kosambi did not make use of any data from archaeological stratification in his dating of PMC. It is true that no such data, apart from those revealed by the easily datable coins in some hoards, were available when he began his numismatic researches, but even in his later articles there is no mention of dating suggested by stratigraphy. He also did not make use of the evidence provided by geographical distribution of different groups which could be done by preparing geographical charts or maps showing the find-spots and the total number of the concerned coins/groups of coins.

Kosambi maintained that PMC were originally issued by traders but were ratified by the king's valuers and marked with the king's symbols. The next step was the identifying of particular symbols as the marks of particular kings. The crescent-on-hill is a Maurya symbol and is often associated with the *śaḍarachakra*. According to him, each symbol is associated with a dynasty. The fourth mark in the cluster of

symbols is the personal signet of the king, because there are about nine such variations. The fifth mark is that of the issuing minister. The symbols with human figures but without the *chakra* indicate the coins of tribal republics. Kosambi does not accept any of the marks as the symbol of a mint. However, his identification of certain symbols with royalty remains controversial with some numismatists still arguing that the coins probably do not bear any royal marks. On this point Romila Thapar¹ observes that with major changes in the nature of the state and of royalty during this period, the coins, if connected with royalty, could not have remained without any appreciable change in style. ‘‘It seems implausible that the Mauryan kings would not have issued special coins and would have been content to merely ratify those issued by traders, for, if nothing else they would at least have imitated the Persian and Greek coins which were circulating in West Asia and with which area Indian kings and traders were in contact. It seems more likely that the coins continued to be issued and ratified by guilds as legal tender, a suggestion which has been linked to the occasional legend of *negama* (from *nigama*?) on some issues from Taxila.’’

A.H. Dani and C.L. Fabri

Further researches on PMC were carried out by A.H. Dani who refuted many of Marshall’s suggestions on the hoard found at Taxila.² The presence of Hellenistic objects at what Dani calls ‘Phase B’ at Bhir Mound, suggests that the hoard is not pre-Mauryan in date; In fact it may be of a much later date. Dani feels that the local currency in Taxila consisted of bar coins, which occurs in what he terms ‘Phase A’ at Bhir Mound. This suggests that PMC were first minted by the Mauryas. Possibly bar coins were in circulation before the Maurya period.

Several scholars of this period also drew attention to the striking

1. Thapar, R., *Interpreting Early India*, New Delhi, 1997, p. 96.

2. Dani, A.H., *JNSI*, XVII, ii, 1955, pp. 27 ff.

similarity between the symbols found on the Harappan seals and PMC.¹ C.L. Fabri held that the devices on PMC are a survival of the Harappan civilization.² Some symbols, identical with the Harappan script, have been found on a copper band discovered at Patna.³ A few others have been found on Kumrahar columns and on the Rampurva copper bolt. A few have been discovered on copper plates, such as that of Sohgauna. Many of these symbols are still current in India as auspicious marks and are used for decorating the floors and the walls of the houses. However, A.H. Dani⁴ does not agree with this view. He has argued that the Indus script represents a system of writing. If a few symbols are taken out of this system and shown to occur at random on coins and other later objects, they can not prove the continuity of the script. Nor do they betoken a survival of the Indus civilization. Dani may be right in his assertion that these symbols do not by themselves represent the continuity of the Indus script, but to say that they are not even a survival of the Indus civilization is perhaps tantamount to blinking at the reality of the traditional heritage of symbols that did not die with time. They may serve as link, however tenuous, between the Harappan and Brāhmī scripts, a field of study where nothing is definite and a lot that has been said is only tentative and by no means certain.

Dani says that he has not been able to find more than fifteen symbols on PMC bearing a close resemblance to the signs of the Indus script. He, however, admits that a few more may be discovered in future. He is disposed to take them as pure symbols, the meaning of which has to be

1. Bhattacharya, P.N., 'A Hoard of Silver Punch-marked Coins from Purnea', *MASI*, 62, pp. 5 ff.; Suryavamshi, Bhagwan Singh, 'Interpretation of Some Symbols of the Punch-marked Coins', *Journal of the Oriental Institute of Baroda*, XII, No. 2, Dec. 1962, pp. 152 ff.

2. Fabri, C.L., 'The Punch-marked Coins : A Survival of the Indus Civilization', *JRAS*, 1935, pp. 307 ff.

3. For the description of these symbols, see Altekar, A.S., 'Symbols on the Copper Band in the Patna Museum', *JNSI*, IX, ii, pp. 88-92.

4. Dani, A.H., *Indian Palaeography*, Oxford, 1963, p. 21.

understood in their respective context. He also rejects the view that the Tāntrika formulae of the medieval period are survivals of the Harappan script.

Romila Thapar, A.D. H. Bivar and A.N. Lahiri

In 1961 Romila Thapar published her famous treatise *Asoka and the Decline of the Mauryas* in which she made some cogent observations on PMC. She believes that probably the earlier coins were of the bent bar variety, PMC coming into use later under the Mauryas. She thus agrees with Allan's view that the bent bar silver coins preceded the PMC.¹ The PMC being easier to handle, probably replaced the bent bar coins early in the Maurya period. Thapar opines that PMC were issued by a central authority and probably the imperial mints were situated in the five major cities of the empire. She does not accept the idea that these coins were traders' tokens which gradually acquired the status of a national coinage. "The symbols possibly had some connection with local commerce, or local administration, but there again the symbol was probably passed on to the mint and became incorporated with other marks of royal authority. It is possible that, since commerce was at a comparatively nascent stage, local traders preferred a local symbol amongst others in order that they could differentiate between money minted in their own area and that of other areas. Thus, though the issuing authority would be solely the royal mint, the symbols on the coins would represent, apart from the royal and dynastic symbols, various institutes such as the guilds, or administrative units such as the provinces."² "The peacock on arches seems most certainly to be a symbol of the Maurya dynasty." "The connection has already been made in the past between the symbol of the crescent on arches and the name Candragupta, 'protected by the moon'. This is depicted by representing the moon against a background of hills."³

1. Thapar, Romila, *Asoka and the Decline of the Mauryas*, p. 247.

2. *Ibid.*, p. 248.

3. *Ibid.*

'The Aśoka symbol seems most obviously the tree-in-railing, representing the Aśoka tree.'

In 1954 A.D.H. Bivar tried to revive the theory of the Achaemenian influence on PMC. He argued that PMC were modelled on, or were influenced by, the later Achaemenid issues on the basis of some thirty re-issued and counter stamped primitive Greek coins of various weight-standards known from the Chaman Huzuri hoard.¹ This view was contested by A.N. Lahiri who has since then emerged as one of the leading numismatist of the country. He rightly argued that common silver PMC evolved from India's more primitive issues.² In his article, 'Archaic Coins of Northern India',³ he has dealt with various categories and series of PMC both of silver and copper. His third notable paper, titled 'Complexities of Silver Punch-marked Coins,'⁴ attempts to delineate the complexities of these coins. It discusses almost all the aspects of PMC e.g. their metrology, modes of manufacture, series-wise characteristics, known denominations, shapes, sizes, fabrics, designs and group-combinations of symbols. He is of the view that more archaic and rare 'local' issues were earlier in date than the comparatively sophisticated and more plentiful 'universal' coins. It also discusses the problem of the symbols of PMC as well as the origin and evolution of the 'primary' and 'secondary' symbols. His article titled 'The Saucer-like Coins and the Trend of Evolution of Early Silver Punch-marked Coins'⁵ shows how the saucer-like coins of the ancient Kāśī region ultimately led to the evolution and introduction of full kārshāpaṇas of 32 rattīs in the kingdom of Magadha. Then, as noted above, he has also contributed a paper discussing the gradual progress of PMC studies in India.⁶

1. NC, 1954.

2. JNSI, XXX, 1968, pp. 1-9.

3. *Ibid.*, XXXV, 1973, pp. 1-38.

4. *Ibid.*, XXXVIII, ii, pp. 1-34.

5. *Chhavi*, 2, 1981, pp. 130-34.

6. JNSI, XLIX, 1987, pp. 155-72.

Seminar on PMC Chronology

The Seminar on the Chronology of the Punch-marked Coins held at Varanasi in 1965 under the auspices of the Department of Ancient Indian History, Culture and Archaeology, Banaras Hindu University, was a landmark in the history of PMC studies. Among those who participated in it were included such luminaries as A. Ghosh, V.V. Mirashi, Jagannath Agrawal, D.C. Sircar, T.V. Mahalingam, Motichandra, P.L. Gupta, K.D. Bajpai, D.D. Kosambi, A.M. Shastri, A.K. Narain, L. Gopal and a host of others. They tried to solve the problems relating to the chronology of PMC by examining all the available evidence—internal as well as external, literary as well as archaeological, also taking into consideration the bearing of the composition of hoards and trade and commerce and such other factors which may throw light, direct or indirect, on this problem.¹

M. Mitchiner, C. Valdetaro and A.M. Shastri

Michael Mitchiner's *The Origin of Indian Coinage* (1975) is a significant work on PMC, though his attribution of these coins to various ancient kingdoms has not found favour with scholars.²

C. Valdetaro, another numismatist of high repute, published a hitherto unrecorded series of 4-symbol *ardha-kārshāpaṇas*.³ The coins come from the Tripurā region (not from Manipur as wrongly stated). These coins have no similarity whatsoever with the one-symbol *ardha-kārshāpaṇas* of the Lotapur hoard as noticed by Durga Prasad.⁴ The interesting feature of the Tripurā issues is the occurrence of the two constant marks on them, viz. sun and six-armed symbols, which full *kārshāpaṇas* almost invariably bear.⁵ Valdetaro has also published over thirty specimens of the cup-shaped or saucer-like coins, five of which

1. *Seminar Papers on the Chronology of the Punch-marked Coins*, ed. by A.K. Narain and Lallanji Gopal, Varanasi, 1966.

2. Cf. Lahiri, *JNSI*, XLIX, 1987, pp. 161-62.

3. *JNSI*, XL, 1978, pp. 82-85.

4. *NS*, XLV.

5. Lahiri, *op. cit.*

were first brought to light by Shri Nath Shah in 1941.¹ Valdetaro's study of these 4-symbol 48-rattī *adhyardhakārshāpaṇas*, though brief, is highly scientific.²

Recently, A.M. Shastri, one of our most brilliant numismatists, has thrown light on the counterfeit PMC. In this Presidential Address to the 3rd International Colloquium on Coinage, Trade and Economy held in 1991 under the auspices of the Indian Institute of Research in Numismatic Studies, he has discussed the problems related to the forgeries and imitations of ancient Indian coins including PMC. In it he has discussed the forgers' equipment (including a broken bronze die used for the purpose of stamping pieces of copper to be afterwards plated in imitation of true silver PMC), and moulds meant for casting silver PMC as well as forged coins. In another article also he has discussed the problem of counterfeit coins.³

P.L. Gupta

At present the most dominant figure in the field of PMC studies is P.L. Gupta. In the last four decades he has written a very large number of papers on PMC, and that too from different angles. In 1955 he published from Bombay his *Bibliography of the Hoards of the Punch-marked Coins of Ancient India* and in 1960 his *Punch-marked Coins in the Andhra Pradesh Government Museum* from Hyderabad. His elaborate catalogue titled *The Amarāvati Hoard of Silver Punch-marked Coins*, 1963, is also a highly informative work which marks a detailed study of nearly three hundred symbols seen on the Amarāvati coins. His classification of coins is based on a scientific method, and furnishes necessary cross-references with regard to similar specimens known from other areas or hoards. In his handbook, *Coins*, P.L. Gupta has briefly dealt with almost all the known series of silver PMC which he has tried to attribute to various

1. *JNSI*, III, 1941, pp. 51 ff.

2. *JNSI*, XXXIX, 1977, pp. 8-17; also see Lahiri, *op. cit.*, p. 161.

3. Shastri, A.M., 'Counterfeit Coins in Ancient India : Literary and Epigraphic Evidence', in *Numismatic Studies*, 3, ed. by D. Handa, New Delhi, 1993, pp. 11-18.

ancient janapadas of India. More recently with T.R. Hardaker he has brought out *Ancient Indian Silver Punch-marked Coins of the Magadha-Maurya Kārshāpaṇa Series* (Nasik, 1985). As PMC are still on the frontier of numismatic researches, no catalogue of them may be taken as complete as new varieties appear almost constantly. But the work of P.L. Gupta and T.R. Hardaker claims to adopt a method of cataloguing which allows new varieties to take their place without upsetting the general classification. The basis of this work is the unpublished Ph.D. thesis of P.L. Gupta (1959), which for the first time listed all the then known varieties of these coins. The Catalogue under discussion is an updated version of this work. Previous attempts to explain the meaning of the punch-marks found on these coins, Gupta and Hardaker believe, were hampered by an incomplete knowledge of the marks themselves — their correct form, position in the five mark sequence, and their recurrence and duration. Now, that a more definitive catalogue is available, a fresh approach to this subject is possible.

As is well-known, the most important classification of PMC is based on the fact that some of them circulated throughout the country while others are divisible into several series according to the area in which the circulation of particular series was restricted. The PMC are, therefore, now usually divided into two categories : (1) Local PMC, found in restricted areas, and (2) Universal or Imperial PMC, found almost throughout the country. The fact that the coins of the Local series were chronologically earlier than the coins of the 'Imperial' series is apparent from the contents of the hoards of the punch-marked coins. According to P.L. Gupta, the Local series represented the coinage of the various janapadas of the early Buddhist age while the Imperial series was the coinage of the Magadhan empire. The various series of the Local PMC differed from one another in their execution, fabric, weight, quality of metal and symbols.¹ Gupta surmises that the Local PMC of the various janapadas were current in the sixth century B.C. and originated much

1. *SP, PMC*, p. 11.

earlier in the seventh, if not in the eighth century B.C. Gupta also presumes that each janapada continued to issue its coinage till it was merged in the Magadhan empire, that is till late in the fifth or the beginning of the fourth century B.C.¹ He also maintains that the Imperial series of PMC of the Magadhan rulers began some time in the sixth century B.C., spread over the country gradually with the expansion of their empire and assumed full imperial status by the beginning of the fourth century B.C.

As regards the Imperial series, P.L. Gupta has further classified it into six categories. According to him, the coins of Period I of the Golakpur hoard may be attributed to Ajātaśatru (552-520 B.C.). The coins of Period II were issued by the successors of Ajātaśatru in between 520-440 B.C., the coins of Period III were in all probability issued by Śiśunāga and his successors. The coins of Period IV may be attributed to the kings of the Nanda dynasty, while the coins of Period V may be attributed to Chandragupta Maurya. But it is not certain if all the coins of this period were issued by him. Some of the varieties might belong to his son Bindusāra. The coins of Period VI should be attributed to Aśoka.²

S.R. Goyal

A.M Shastri has supported the view of P.L. Gupta so far as latter's classification of the punch-marked coins into Local and Imperial series and the posteriority of the Imperial series to the Local punch-marked coins are concerned.³ But S.R. Goyal has criticized some aspects of this theory. His *Indigenous Coins of Early India* published from Jodhpur in 1994 provides a critical treatment of PMC. It contains one chapter in thirty-five pages on PMC excluding an Appendix in fourteen pages alongwith 7 plates of these coins.⁴

Goyal discusses scientifically, systematically and in detail the origin

1. *Ibid.*, p. 4.

2. *SP, PMC*, pp. 16-18.

3. Shastri, A.M, 'Literary Evidence Bearing on the Chronology of the Punch-marked Coins', *SP, PMC*, p. 120.

4. Reproduced in his *The Coinage of Ancient India*, Jodhpur, 1995.

and antiquity of PMC and also their general features, main categories, metrology, denominations, fabric, chronology, mode of manufacture, problems of the identity of their issuers, classification, significance of symbols and other related issues. He takes into consideration the latest PMC finds and hoards and researches done in the recent years. Criticising P.L. Gupta, Goyal argues that Gupta has depended mainly on the evidence of symbols, fabric, metrology, metal content, composition of hoard, etc. of coins and on the literary data but he has left archaeological evidence altogether out of consideration. Further, “The theory of P.L. Gupta fails to pass the test of history also”, for “there was no Imperial power in India in the sixth century B.C.”, and coins of the Imperial series, which are recovered from all over India, strictly speaking, should be ascribed to the Nandas and Mauryas.¹

Goyal is of the view that though PMC, which are the earliest known coins of India, are Indian in origin and character and a direct descendant of the metallic pieces of definite weight prevalent in pre-500 B.C. period, yet there is some likelihood that their issuers were influenced by the Babylonian and Iranian coinage, some elements of which may be traced even now in the ancient name and form of the PMC.²

As regards the chronology of PMC Goyal has tried to prove that :

(i) There was no regular ‘coinage’ in the Vedic age though we have evidence of gradually increasing use of gold pieces of definite weights. Use of silver pieces is mentioned, though only rarely, in the later Vedic literature.

(ii) The transition from ‘metallic pieces of definite weight’ to ‘coins’ took place only shortly before 500 B.C. because archaeologically the PMC can nowhere be dated earlier than 500 B.C. and literary evidence also

1. For details see Goyal, *op. cit.*, pp. 90-93.

2. ICEI, p. 76. Romila Thapar seems to be of a similar view. “The symbols on the coins are suggestive of an indigenous origin although the notion of coined metallic money was probably known from west Asian usage.” See her Afterword in *Aśoka and the Decline of the Mauryas*, Oxford, 1998, p. 288.

does not prove the existence of the silver currency in the pre-Pāṇini and pre-Tripitaka period. Real coins are known to literature from c. 500 B.C. only.

(iii) Silver itself was not available in India in sufficient quantity for minting large number of coins before this period.¹

1. *Ibid.*, p. 71. Also see Thapar, Romila, *op. cit.*, pp. 288-89 ; Ray, S.C., *Stratigraphic Evidence of Coins in Indian Excavations and Some Allied Issues, Numismatic Notes and Monographs*, Varanasi, 1959, 1-14 ; Dhavalikar, M.K., 'The Beginning of Coinage in India,' *World Archaeology*, 6, 1975, pp. 330-38.

Chapter Three

The Tribal and Local Coins

Early Studies : Upto 1914

Numismatic evidence discloses the existence of many tribal republics and monarchical states which flourished in different parts of central and western regions of North India in the centuries immediately preceding and following the birth of Christ.¹ Prinsep was one of the pioneers who studied these coins, nowadays usually described as Tribal and Local coins. His various writings on this subject were included in *Prinsep's Essays* collected and published in two volumes by E. Thomas. Some of the coins of the Ārjunāyanas, Kuṇindas, Rājañyas, Śibis and Yaudheyas are illustrated in them. In *JASB*, 1875, a coin of Amoghabhūti Kuṇinda was noticed by R.L. Mitra while an article of Hoernle published in the same Journal in 1884 brought to light Yaudheya coin-moulds found near Rohtak and Sunet. These coin-moulds were later studied in detail by Birbal Sahni in 1941² and afterwards in 1954.³

A. Cunningham, E.J. Rapson and V.A. Smith

The numismatic discoveries of Sir Alexander Cunningham, including those of Tribal and Local coins, were first published in his *Archaeological Survey Reports*. They were later included in his invaluable work, *Coins*

1. To the best of our knowledge, the only article dealing with the historiography of the Tribal and Local coins is that of Bela Lahiri published in the *JNSI*, XLIX, pp. 170-74.

2. *Current Science*, 1941.

3. *Techniques of Casting Coins in Ancient India*, Varanasi, 1954.

of *Ancient India*, published in 1891. His attributions are still given due respect though now it has become apparent that in many cases his views are not correct. For example, he has included the coins of Vaimiki Rudravarman, Kaulūta Vīrayaśas and the unique silver piece of the Vṛshṇi republic within the Audumbara coinage.

Cunningham was followed by another great scholar, E.J. Rapson, who in Chapter V of his small monograph, *Indian Coins* (1897), gave a brief account of the 'coins of the native Indian states from earliest times to c. 50 A.D.' He accepted the reading *Kolūta* suggested by A.V. Bergney¹ and made further studies of the coins of Ārjunāyanas, Audumbaras, Kulūtas, Vemakis and Uddehikas in one of his articles published in 1900.²

(Smith's work on these coins started in 1897.³ In 1906 his monumental work, *Catalogue of Coins in the Indian Museum, (IMC)*, Vol. I, was published. He, for the first time, differentiated between 'Local' and 'Tribal' coins. In this work he first gives a short introduction about the issuing tribe or kingdom alongwith the provenance and approximate date of the coins and then gives a full description of the obverse and reverse devices alongwith legends and also records the metal, weight and size of each coin.)

Later Studies : Before 1947 : R.D. Banerji and Some Others

In the second decade of the twentieth century the contribution of Indian scholars to the study of Local and Tribal coins began to acquire significance. In 1914 R.D. Banerji published (some copper pieces of the Audumbara chiefs Dharaghosha, Śivadāsa and Rudradāsa, pointed out that the coins of Vaimiki Rudravarman and Kaulūta Vīrayaśas and the solitary piece of the Vṛshṇi republic included by Cunningham within the Audumbara coinage have no connection with that tribe and questioned the attribution of some Mitra coins to the Audumbaras. In 1322 B.S. he

1. Bergney, A.V., 'Notes on Some Brāhmī-Kharoshthī Inscriptions on Indian Coins', *JRAS*, 1900.

2. Rapson, E. J., 'Notes on Indian Coins and Seals', *ibid.*

3. Smith, 'Numismatic Notes and Novelties', *JASB*, 1897.

published his *Prāchīna Mudrā* which is the first comprehensive work on ancient Indian coins written in an Indian language. In 1918 R.C. Majumdar brought out his *Corporate Life in Ancient India* in which, in connection with non-monarchical states, the coinages of several Indian tribes are discussed. Three years later D.R. Bhandarkar made some contribution to this aspect of ancient Indian numismatics. In 1923 a valuable study of the Mālava coins was made by R.O. Douglas¹ while K.P. Jayaswal in his *Hindu Polity*, published in 1924, discussed the coins of several tribes in connection with the study of the *saṃgha* form of government.

S.K. Chakraborty and Some Others

A landmark in the study of Tribal and Local coins was S.K. Chakraborty's *A Study of Ancient Indian Numismatics* published in 1931. In 1935-36 in an article he made a more critical and comprehensive study of the subject.² However, the most important work on these coins written before 1947 was John Allan's *Catalogue of the Coins in the British Museum, Ancient India (BMC, AI)* published in 1936. In this work Allan made full use of the researches and writings of earlier scholars, wrote an authoritative introduction and classified and described all the types known to him. He, however, included both the 'Local' and 'Tribal' coins under the category of Tribal coins. Among other scholars who made significant contributions to the subject in the pre-Independence era are included M.J. Przyluski, L.D. Barnett, P.L. Gupta and J.N. Banerjea.³ Many a scholarly articles by other numismatists on different aspects of these coins also appeared in leading journals, specially in the *JNSI*.

Post-1947 Studies

After the dawn of Independence in 1947, the outline history of the local kingdoms and tribal republics was given by D.C. Sircar in *The Age of*

1. Douglas, R.O., *Numismatic Supplement*, (NS), XXXVI, 1923.

2. NS, 1935-36.

3. Przyluski, M.J., *Journal Asiatique*, 1926 ; Barnett, L.D., *BSOAS*, 1940-42; Gupta, P.L., *JNSI*, IV, 1942 ; *IHQ*, XXVII; Banerjea, J. N., *Development of Hindu Iconography*, 1941.

Imperial Unity (Bombay, 1951) mainly with the help of their coins while in 1958 in his *State and Government in Ancient India* A.S. Altekar used this source to deal with the nature of government of these states.

Seminars on Local and Tribal Coins and the Works of M.K. Sharan and K.K. Dasgupta

On 24th December 1966 a Seminar on Local Coins of Northern India was held in Banaras Hindu University, Varanasi.¹ Six years later, in 1972, another Seminar on Tribal Coins was organised in the same University.² Since then several other works have appeared on the history of the tribal and monarchical states of the pre-Gupta period including those of M.K. Sharan, K.K. Dasgupta, K.D. Bajpai and Bela Lahiri. The work of M.K. Sharan, *Tribal Coins — A Study* (New Delhi, 1972) is restricted to the study of the coinage of a few tribes only (viz. Yaudheyas, Mālavas, Audumbaras and Kunindas) while that of K.D. Bajpai, *Indian Numismatic Studies* (New Delhi, 1976) is only a collection of his papers published in various journals. The monograph of K.K. Dasgupta, *A Tribal History of Ancient India : A Numismatic Approach* (Calcutta, 1974), however, is comprehensive and up-to-date and takes note of practically all the available material and important writings on the subject. Dasgupta discusses in detail 14 tribes, each one in a separate chapter, listing them alphabetically. Tribal words of doubtful significance have been put in Appendix I while art in tribal coins and their minting technique are discussed in Appendices II and III. A consolidated list of the tribal coins is given in Appendix IV.

Dasgupta's work is much more than a mere compilation of hitherto known material. He has given several new suggestions, the most interesting of which undoubtedly concerns the riddle centering round the depiction of the figure of the sage Viśvāmitra on Audumbara silver

1. *Seminar Papers on the Local Coins of Northern India, c. 300 B.C. to 300 A.D.*, ed. A.K. Narain, Varanasi, 1968.

2. *Seminar Papers on the Tribal Coins of Ancient India, c. 200 B.C. to 400 A.D.*, eds. Jai Prakash Singh and Nisar Ahmad, Varanasi, 1977.

coins. On the basis of literary evidence noticed for the first time it has been convincingly demonstrated that the *udumbara* (fig) tree was traditionally associated with the birth of Viśvāmitra whom the tribe regarded as its 'national sage'. Some other original suggestions concern the tiny copper coins with enigmatic legends generally attributed to the Mālavas and the interpretation of the legend on the only known Vṛshṇi coin. In a few cases, earlier classification of coins has been sought to be improved upon.

Bela Lahiri

Bela Lahiri's *Indigenous States of Northern India circa 200 B.C. to 320 A.D.* (Calcutta, 1974) is her dissertation approved by the University of Calcutta for D. Litt. degree. Its Introduction has two parts. Part I provides the historical background while Part II deals with various sources. The rest of the work is divided into four sections which are subdivided into thirteen chapters, each dealing with the history of a dynasty or a state or a group of states. Chapter I expatiates on various problems connected with Pushyamitra Śūṅga. The treatment of the Later Śūṅgas and Kaṇvas in Chapter II is followed by an account of the autonomous towns and cities in Chapter III. In Chapter IV, which deals with the problems of the Mitras, it has been suggested that the Mitra kings ruling in different parts of northern India were probably descendants of the provincial governors of Pushyamitra Śūṅga and that they might have adopted the name-ending *mitra* from Pushyamitra to indicate their affiliation to the Brāhmanical faith. Chapter V deals with the history of Kauśāmbī and Ayodhyā. The history of Kanauj and Mathurā forms the theme of the following Chapter. The next Chapter deals with the history of Pañchāla, Almora and Jagatgram. During this period Punjab, Haryana and Himachal Pradesh saw the rise of a number of *janapada* states, the majority of which had a republican form of government. For the history of all these states Lahiri depends on numismatics as her primary source without, however, overlooking epigraphic and literary materials.

A.M. Shastri and P.L. Gupta

One of the major ruling dynasties of the pre-Gupta age was that of the Maghas of Kauśāmbī region. About two decades ago Ajay Mitra Shastri published his monograph *Kauśāmbī Hoard of Magha Coins* (Nagpur, 1979). It is a detailed study of a single but the largest hitherto reported hoard of coins from Kauśāmbī issued by the Magha chiefs who ruled over an area 'extending from Fatehpur district of Uttar Pradesh to Shahdol district in Madhya Pradesh' during the early centuries of the Christian era. Before this three other hoards and some stray coins issued by the Magha kings had been published or reported. The Kauśāmbī hoard, however, 'is unique as it represents the coinage of practically all the Magha chiefs' who seem to have minted extensively. Further, it represents a large number of new varieties issued by the different Magha chiefs and contains hitherto unknown devices used by the moneyers responsible for issuing this series. Of the seven Magha kings (apart from Vijayanandin of unknown affiliation) represented here, Mahārāja Magha is a new name. He was possibly the first king of the dynasty as suggested by Shastri. Shastri also makes a distinction between the two Śivamaghas on numismatic grounds.

Shastri's study is divided into two parts. Part I is devoted to a discussion of the general features of Magha coinage and the history of the Magha dynasty based on different sources known so far. Part II deals with coins of the Kauśāmbī hoard in detail. Appendices I and II deal with the coins of the Magha and allegedly Magha chiefs not represented in the present hoard while Appendix III gives the metallic content of the Magha coins.

Shastri has made a factual study of the Kauśāmbī hoard and has refrained from drawing any inferences. His treatment of the subject is very comprehensive with due emphasis given on identification, attribution, varieties, obverse/reverse devices, etc.

P.L. Gupta has discussed the tribal coins preserved in the Himachal Pradesh State Museum, Shimla, and the Bhuri Singh Museum, Chamba,

of Himachal Pradesh, in his *Numismatic History of Himachal Pradesh* (Delhi, 1988). In it he has given a brief outline of the Kulūta, Trigarta, Audumbara, Vemaki, Vṛshni, Paurava, Kuṇinda, Yaudheya, Kumāra, Kada and Varshgaṇa states. (pp. 9-29). As the coins of the Kuṇindas are specially preserved in the above-mentioned museums, he has described 525 of them in detail. (pp. 75-107).

Recently M.P. Joshi has published a monograph titled *Morphogenesis of the Kuṇindas*. But unfortunately we have not been able to consult it.

S.R. Goyal

S.R. Goyal is another scholar who has dealt with Local coins including Tribal and Naigama coins quite comprehensively and in a scientific manner in Chapter 6 of his *Indigenous Coins of Early India*.¹ The Chapter is divided into 51 sections. In the first section he has given the historical background of the Local, Tribal and Naigama coins. In the next section the difference between these and PMC has been brought about. In the following eleven sections general features of the Tribal, Monarchical and Naigama coins are discussed. The next fifteen sections deal with the coins of various tribal states which are followed by ten sections on the coins of the monarchical states. The last thirteen sections discuss the issues of the City or Naigama coins. In his analysis of the historical background Goyal points out that the tribal states of the post-Kushāṇa period were passing through a period of transition as is indicated by their coinage and other sources.² As shown by Goyal in detail elsewhere also,³ these tribes were trying to maintain the outward appearance of being republics but in practice their chiefs were becoming hereditary rulers enjoying almost every prerogative as were enjoyed by the kings of monarchical states. “That is why”, Goyal argues, “though the Lichchhavi relations

1. *ICEI*, Ch. 6, pp. 112-204, reproduced in his *The Coinage of Ancient India*, Jodhpur, 1995.

2. *Ibid.*, p. 113.

3. *HIG*, pp. 60-61.

of Chandragupta I, the Gupta emperor, had a republican or tribal constitution (since the word *Lichchhavayah* occurs on the reverse of his coins), yet it is almost certain that the Lichchhavi father of Kumāradevī was a hereditary chief for otherwise how could her son inherit the state of his maternal grandfather?'' Similarly, the head of the Yaudheya state, though his post was perhaps elective, arrogated the title 'Mahārāja'. The headship of the Sanakānīka tribe, too, had become hereditary as is evident from the Udayagiri cave inscription of 401 A.D. which also proves, that the regal title 'Mahārāja' had been usurped by its rulers also. Even among the Mālavas the leadership passed into the hands of persons like Śrī(?)Soma who claimed that their stock was as respectable as that of the royal family of Ikshvākus and who hereditarily led the state armies in the times of war and organised civil administration in times of peace. Goyal, therefore, opines that "this transition from republican form of government to monarchical was symptomatic of the inner crisis through which they were passing."''¹ The coinages of most of the tribes provide positive proof of this development.

On the controversial question of the designation of these coins Goyal, after discussing the views of John Allan, K.D. Bajpai, P.L. Gupta, Vincent Smith, Cunningham, Jai Prakash and many others, opines that the term 'Local' appears to be the most appropriate one for them because all these coinages have their own peculiar local features which are not usually found on any of the remaining coinages.² It is this characteristic which distinguishes them from other sister coinages.

The question of foreign influence on Local coins is quite controversial. Goyal has analysed this problem afresh³ and seems to support A.N. Lahiri's theory that as a result of the considerable sway that the Indo-Greeks and their foreign successors had over a large part of North-Western India, coins struck by indigenous authorities gradually

1. *Ibid.*, p. 61.

2. *ICEI*, pp. 116-17.

3. *Ibid.*, pp. 125-29.

began to be influenced by the technically superior issues of the foreign rulers. However, copper coins, which retained their local characteristics due to an inherent conservatism of their issuers, remained immune from foreign influence for a considerably long time.

On the problem of the chronology of Local coins, Goyal has considered all the evidence and has concluded that since the fashion of mentioning the name of the ruling authority in coin-legends was inspired and popularised in India by foreign kings beginning with the Indo-Greeks, most of the coins bearing such legends should preferably be assigned to a date later than the early decades of the second century B.C. Even the earliest inscribed coins do not appear to be earlier than the Besnagar inscription of the end of the second century B.C.

However, Goyal also feels that at Taxila the earliest inscribed Local coins may be taken to be somewhat earlier but not much anterior to the advent of the Bactrian Greeks.¹

In the analysis of the coins of monarchical states Goyal also examines the problem of the kings with - *mitra* ending names.² As is well-known, in the post-Maurya period, the most important monarchical state was that of the Imperial Śūṅgas. But whether or not the Imperial Śūṅgas issued their own inscribed coins, one does not definitely know. Several scholars including H.C. Raychaudhuri,³ K.P. Jayaswal⁴ and many others have attributed to them certain coins bearing - *mitra* ending names which are known from various important cities and sites of ancient India like Kauśāmbī, Ayodhyā, Kanauj, Mathurā, Avanti, Achichchhatrā, etc. However, there is another school of scholars who do not subscribe to this view and believe that the Imperial Śūṅgas themselves did not issue any coinage.⁵ Goyal seems to be of a similar view. As Bela Lahiri also

1. *Ibid.*, p. 134.

2. *Ibid.*, pp. 174-76.

3. *PHAI*, p. 392 f.

4. *JBORS*, III, p. 476.

5. Cunningham, *Coins of Ancient India*, p. 79 f.; Allan, *BMC, AI*, p. cxx; Sastri, K.A.N., *Comp. Hist. Ind.*, Vol. II, VI, p. 135; Lahiri, Bela, in *JNSI*, XX, ii, pp. 123 ff., Prasad, H.K., *ibid.*, XVII, i, pp. 24-36.

argued, while some of the local dynasties of North India during the second-first centuries B.C. might have owed their origin to the Śūngas, none of them can be definitely identified with the imperial line. Nor can we hold that all the so-called *mitras* of different region belonged to a single family. Obviously the surname *mitra* was as popular at that time as was the surname *varman* in the later ages.¹

On the question of the issuer of the coins of the *Negama* and *City* series, Goyal agrees with the view of J.P. Singh that on the basis of Buddhaghosha's evidence it is very difficult to prove the monetary nature of the *Negama* and *City*-tokens. As regards the so-called coins on filmsy materials and the so-called coins of bits of wood, bamboo and palmyra leaves, lac and gum, he does not include them among real coins;² these, he believes, may at best be described as primitive money.³

1. Lahiri, Bela, *op. cit.*

2. For clay-tokens as currency in ancient India, see Manmohan Kumar, in *Numismatic Studies*, 4, eds. A.M. Shastri and Manmohan Kumar, New Delhi, 1996, pp. 13-20.

3. *ICEI*, pp. 203-04.

Chapter Four

The Indo-Greek Coinage

The Beginnings

The coins of the Indo-Greeks provide us with many an interesting information about their history and culture. On them we get the portraits of the kings and a fair idea of their bearings and different stages of manhood as well as their dresses. We see the deities they worshipped, and mark their iconographical peculiarities. We know from their legends probably which languages those Greek princes used in their Indian courts. We also know quite a lot about their monetary system. Certain common features, types and monograms help us in reconstructing the history of many of these Greek rulers and give us a clue to their chronology and mutual relationships. In 1886, Percy Gardner, the author of the *British Museum Catalogue*, however, thought otherwise : “Any attempt finally to arrange the kings in dynastic lists by means of the types and legends which they use is destined to be a failure,” he opined. He argued that “identity of types between two kings is no proof of their relation to one another, nor is divergence of types any proof that they were not related.” The subsequent researches have, however, shown that his scepticism in this matter was not valid.

Theophilus Bayer and Some Other Early Savants

The historiography of the Indo-Greek coins¹ is a long story of arduous

1. See Lahiri, A.N., ‘Numismatography of Indo-Greek Coins’, *JNSI*, XLIX, pp. 175-81; Goyal, Shankar, ‘Historiography of the Indo-Greek Coinage’, in *Numismatic Studies*, 6, ed. Manmohan Kumar, New Delhi, 1998.

research. It was in 1738 that a tetradrachm of Eucratides as well as a coin of Menander (wrongly attributed at that time to a 'Theodotus') were published in Theophilus Bayer's Latin work *Historia Regni Graecorum Bactriani*.¹ Theophilus Bayer not only illustrated the coin of Eucratides but tried to connect it with Eucratides of whom some writers of classical antiquity had preserved a brief record. Some time later in the course of the same century, a gold coin published by the celebrated numismatist Pellerin confirmed the existence of Euthydemus, another Bactrian monarch mentioned by the Greek writers.² In 1799 was discovered a coin of Heliocles whom M. Mionnet placed amongst the kings of Bactria.

In 1882 another king, Antimachus Theos, was added to the list by Köhler who, again in the next year, published the description of a tetradrachm of Demetrius procured from Bokhara along with some barbarous tetradrachms and small coins of Eucratides. Two years later Col. Tod published in the first volume of the *Transactions of the Royal Asiatic Society* (1824) two bilingual coins of Menander and Apollodotus. These coins, for the first time confirmed the account of the author of the *Periplus of the Erythrean Sea*, in whose time (c. first century A.D.) coins of Menander and Apollodotus were in circulation in the port of Barygaza.

Duplicates (one each) of the coins of Eucratides and Heliocles acquired by the British Museum were published in 1830 in a descriptive catalogue of the Museum's collection. Within a few years, a lively interest was created by the discoveries of a large number of Indo-Greek, Indo-Scythian and Kushāṇa coins from Manikyala, Karnal and other places. In India, many of these coins were published by James Prinsep in the *Journal of the Asiatic Society of Bengal* in 1833.

Charles Masson, an Englishman resident of Kabul, collected mainly from Begram and nearby places a large number of such coins and published on them two detailed memoirs in the *Journal of the Asiatic Society of Bengal* in 1836. A rich crop of such coins collected on the spot

1. St. Petersburg, 1738.

2. *Ari. Ant.*, p. 3.

by three Frenchmen in the service of Maharaja Ranjit Singh, viz. Gen. Ventura, Gen. Allard and M. Court, was also published by Rochette in 1836, 1838 and 1839 in the *Journal des Savants*.

H.H. Wilson and E. Thomas

The history of the study of the Greek coins of Bactria and India was first narrated in English by H.H. Wilson in the *Numismatic Journal* (London) in 1838. It happened exactly a century after the publication of Bayer's book. Later on he elaborated it in his epoch-making book, *Ariana Antiqua*, sponsored by the East India Company and published in London in 1841. James Prinsep's *Essays on Indian Antiquities* was critically edited, supplemented and published by E. Thomas in two volumes in 1858. Thomas also wrote some interesting articles in the *Numismatic Chronicle*.

Alexander Cunningham

In the meantime began to appear, since 1840, a few articles by Alexander Cunningham on counterfeit Bactrian coins. His studies on the monograms on the Bactrian and Indian coins of the Greek rulers appeared in the *Numismatic Chronicle*, Vol. VIII. But his most comprehensive studies were the series of papers titled *Coins of Alexander's Successors in the East*, which appeared in the same journal in the years 1868-1870, 1872 and 1873. Subsequent discoveries of coins and researches based on them have made much of A. Cunningham's studies outdated, "but these essays," as aptly pointed out by R.B. Whitehead, "still remain the only full accounts of the Indo-Greek series of coins, and are remarkable testimony to the knowledge and ingenuity of their author."¹

Percy Gardner

The first scientific catalogue of the British Museum coins of the Graeco-Bactrian and Indo-Greek rulers as well as their foreign successors in India was published by Percy Gardner in 1886. The British Museum possessing the most representative collection of such coins, Gardner's *Catalogue* has always been a source-book of undiminished value.

1. *PMC*, p.4.

V.A. Smith, H.G. Rawlinson and E.J. Rapson

In 1904 was published the first part of the *Sale Catalogue* of the coins acquired by Sir Lucas White King. It contained descriptions and illustrations of a good number of highly interesting coins of the Greek kings of Bactria and India. Two years later appeared V.A. Smith's famous *Catalogue of Coins of the Indian Museum, Calcutta*, in which were included the coins acquired by the Indian Museum as well as the Asiatic Society of Bengal. H.G. Rawlinson's *Bactria* was published in 1909. It narrated in a scholarly way the history of the Greek rule in Bactria and India. In the meantime E.J. Rapson contributed an interesting series of articles titled 'Notes on Indian Coins and Seals' (*JRAS*, 1900-1905) in which he dealt with some important Indo-Greek coins. He also published in the *Numismatic Chronicle* (1904) some small coins, the most important of which are the unique obols of Pantaleon and Euthydemus II. His paper in the *Corolla Numismatica* (1906) on the coins of Agathocleia and the two Stratos proved the relationship between Agathocleia and Strato I.

R.B. Whitehead

From 1910, R.B. Whitehead became the dominating and recognised figure in the field of the Indo-Greek numismatics. His *Punjab Museum Catalogue of Indo-Greek Coins*, 1914, revealed much newer material on the subject. His *Numismatic Notes and Monographs* was published in 1922. But the most remarkable is the series of his papers titled *Notes on Indo-Greek Numismatics*. These papers appeared in the *Numismatic Chronicle* in 1923, 1940, 1947 and 1950.

W.W. Tarn

In 1938, that is exactly two centuries after the publication of Bayer's monograph, was published W.W. Tarn's remarkable book, *The Greeks in Bactria and India*, which is a mine of information on the subject. It presented for the first time a plausible chronology of the Greek rulers of Bactria and India. Its second edition came out in 1951. After its publication it became difficult to write anything on the Indo-Greeks without a

thorough reading of Tarn's book. He provided an essential basis for future researches on the Indo-Greek rulers. On the limitations of numismatics as a source for Indo-Greek history, Tarn observed : "...to write this book impersonally was not possible; much of it is spadework, and it had to get written as best it could, other considerations being subordinated to an effort to make the bearing of the rather complex collection of little details clear to the reader... the coins of course are all-important... But the numismatist as such has sometimes been unable to place or explain the facts which he has elicited, naturally so, for he is not expected to be a Hellenistic historian... I am not concerned with the coins as coins, but as material for history."

Thus, till the middle of the twentieth century, it were mostly the Western scholars who interested themselves in the Indo-Greek history. However, their acquaintance with ancient Indian literature was rather casual. In some cases their approach was noticeably subjective and pro-Greece. To an impartial reader the attempts of E.J. Rapson, Macdonald, Tarn and others appear as coloured with an anxiety to glorify the Greeks. They unfortunately failed in correlating numismatic evidence with the information supplied by near-contemporary Indian literature. Consequently, a one-sided and distorted view of history came to be presented, putting the Indian side in an unfavourable light. This was the situation of the Indo-Greek numismatography when India became independent.

Early Years of Post-1947 Era

In the post-1947 period numismatists — both Indian and Western — continued to work on Indo-Greek coins and history. A.D. H. Bivar did a great service to this branch of Indology by publishing two reports (in Spink's *Numismatic Circular*, May 1953 and May 1954, and later on in *JNSI*, XVII, pp. 37-52) about the discovery of a great hoard of at least 5 Attic double decadrachms (about 1300 grains each) and 605 Attic tetradrachms from a place halfway between Qunduz and Khanabad in Northern Afghanistan. It became famous as the Qunduz hoard. These

coins were later acquired by the Kabul Museum. The importance of the Qunduz hoard cannot be overestimated as it included 17 new and historically important Attic coins of seven Indo-Greek kings, who were so far known only from coins struck in an improvised light-weight Indian standard. All Greek kings of Bactria, except Pantaleon, are also represented in the hoard by at least 589 tetradrachms showing (besides some highly interesting novelties) a good many types and varieties of coins hitherto known only from unique or rare specimens.

The French Archaeological Mission working in Afghanistan brought to light a very large number of Graeco-Bactrian and Indo-Greek coins alongwith others, mostly found at Mir Zakah, a village forty miles south-east of Kabul. These were published from Paris in 1953.

An Indian Archaeological Delegation led by T.N. Ramachandran, the then Joint Director-General of Archaeology, visited Kabul in May, 1956. Its report provided the Indian numismatists with a good deal of information regarding the Indo-Greek coins housed in different museums of Afghanistan.

Meanwhile many Indian scholars made substantial contribution to the study of Indo-Greek history and coins. The first important Indian historian to delineate the history of the Bactrian and Indo-Greek rulers in the post-1947 era was D.C. Sircar who wrote a chapter on them in *The Age of Imperial Unity* (1951). His account was brief but lucid. In *A Comprehensive History of India*, Vol. II, published in 1957, such a chapter was written by J.N. Banerjea.

A.K. Narain

The Indo-Greeks of A.K. Narain (Oxford, 1957) was, however, a work of entirely different kind. It was reprinted in 1962 and 1980. On the importance of numismatic source for Indo-Greek history, Narain writes: "No doubt it is true that numismatics is one of those unwritten sources which gives scope to the historian to wander off into the land of romance, if he is not disciplined in understanding the limitations of the source he is using. And I think it is natural that, for periods of ancient history

where numismatics is the major source, those who have been trained to tackle coins have been more objective in presenting the story than a general historian. For certain periods a historian has to be a numismatist; he must treat history as a science and not as literature.''

Since 1957 A.K. Narain's work has remained virtually the only reliable Indian work on the subject. Among his more significant suggestions are included the following : The literary evidence does not point to the existence of a powerful ruler named Apollodotus in early times. (p. 66). Sophytes was a Greek king belonging to an earlier Greek colony in India, which was also responsible for the coinage of the early 'owls'. (pp. 4-6). Relying on the findspots of coins Narain opines that the kingdom of Demetrius I did not comprise even the Kabul valley, much less any part of the N.W.F.P. or the Punjab. (pp. 30-31). The cult of Poseidon was followed in inland towns like Mantinea and Rhaucus and the occurrence of this deity on the coins of Antimachus Theos need not refer to a naval victory. (pp. 48-49). The deity on the coins bearing the legend *Kavishiye nagaradevata* is not Zeus but the turretted city goddess. (p. 62). Demetrius II may have been a son of Antimachus Theos and not of Demetrius I. (pp. 52-3).¹ Plato's coins do not bear the date 147; in the exergue there are only two letters M and H, and they may be engraver's initials. (p. 71). Menander led the Greek army to Pāṭaliputra in alliance with the kings of Mathurā and Pañchāla. (p. 82). There was only one invasion or raid by the Indo-Greeks and not two. (p. 88). Antimachus II was probably a brother of Menander. (p. 95). The reign of Strato I was not a continuous one. The solitary joint coin of Lysias and Antialkidas is a 'mule'. (p. 116). Apollodotus may have been a younger brother of Strato I. (p. 122). The findspots of the coins show that the Indo-Greek

1. In his lengthy paper 'Demetrius II and Euthydemus II : the Sequence of Bactrian Coins', published in *India : History and Thought : Essays in Honour of A.L. Basham* (ed. by S.N. Mukherjee, Calcutta, 1982, pp. 15-41), K. Walton Dobbins *mutatis mutandis* supports the theory of the existence of two kings each, of the names of Demetrius and Euthydemus.

kingdom was divided into seven separate regions and there were several Greek ruling families. They did not fall at the same time. (pp. 128-64).

However, many of the suggestions of Narain have not been generally acceptable to scholars. For example, Narain's one-Apollodotus theory (pp. 64-67, 69) has been severely criticized by a number of scholars, including A.N. Lahiri. Lahiri believes that Narain has attributed the large number of two *distinct* and *widely apart* series of coins bearing the name of Apollodotus to one and the same king; and this attribution has impaired his view of Indo-Greek history, since the activities of the first Apollodotus have been confused with those of his later namesake. According to A.N. Lahiri, there was a lapse of considerable time between Apollodotus I Soter whose coins were restruck by Eucratides I and Apollodotus II whose coins were overstruck by Maues, the Indo-Scythian king, who flourished some seventy years later.¹

With regard to the existence of duplicate kings also, many of A.K. Narain's views have been disputed by Lahiri. Narain believes that Diodotus I took liberties with the coins of Antiochus II, imitating them, but substituting sometimes his own name and sometimes his portrait for those of Antiochus. And this means that Diodotus I also issued coins in his own name. Contrary to Narain's attributions, Lahiri has tried to show that coins bearing the name of Antiochus (II) were issued by Diodotus I while those that bear the name of Diodotus were the issues of Diodotus II. Then, again, the unique British Museum silver coin with the legend *Diodotou Soteris*, which Narain attributes to Diodotus I (p. 17), could not have been issued by any of the two Diodotuses, as almost conclusively shown by Macdonald in the *Cambridge History of India*, I. (p. 465). Narain's creation of a third Eucratides (pp. 123, 124) has also not been accepted by others. The existence of a second Heliocles ruling in India and issuing bilingual coins as held by him (pp. 105, 111), has been disputed by Lahiri who has tried to show that one and the same Heliocles, after being ousted from Bactria, ruled in India as well.

1. Lahiri, A.N., *Corpus of Indo-Greek Coins*, pp. 90-92.

A.K. Narain is inclined to hold (p. 98) that the epithet 'Dikaios' meaning 'pious', as seen on a few extremely rare Menander coins, points to his conversion to Buddhism, as tradition asserts. He tacitly believes that the 'wheel' (identifiable with the *dharmachakra* of the Buddha), seen on a few known tiny copper coins bearing the name of Menander Soter, also points to Menander's Buddhist leaning. Lahiri disagrees on these points. According to Lahiri, it is also almost certain that Queen Agathocleia was not the consort of Menander (I) and mother of Strato I but was actually the wife of Strato I himself. It was apparently to accommodate a large number of Greek kings into a brief span of time that Tarn conjectured the existence of some hypothetical 'joint-kings' and created an otherwise unknown state-form, 'sub-king'. Narain subscribes to Tarn's thinking and holds that Antimachus II, Zoilus I, Zoilus II, Polyxenus and Epander were sub-kings of Menander (I). But, according to Lahiri, there is no numismatic evidence warranting or even remotely indicating such positions.

A.N. Lahiri

The first Corpus of the Indo-Greek coins by any Indian scholar was prepared by A.N. Lahiri.¹ It gives an accurate description of all the different types of coins issued by the Indo-Greek kings, and marks an advance on the accounts furnished in the catalogues of different museums by bringing together at one place all the relevant information on the subject. The book is divided into three main parts—Introduction, Catalogue of the Coins, and Appendices. In the Introduction are discussed broad chronological survey of the history of the discovery and study of these coins up to the present time, their artistic merit and various technical aspects, such as the metals used, the standards of weight followed, method of striking, various devices, scripts, legends and monograms found on the coins, etc. The second section (pp. 20-35) of the Introduction deals with 'Devices', which occur on both the obverse and reverse of the

1. *Corpus of Indo-Greek Coins*, Calcutta, 1965.

coins, and consist of the figures of divine, human, and semi-human beings and of animals and objects of divine and secular association. The depiction of royal portraits with or without a head-gear on the one hand and the iconographic features of the Greek gods and goddesses on the other have been elaborately discussed here. Its supplement in the form of Appendix I (pp. 195-213) gives 'Coin-types' in an alphabetical order.

The third section of the Introduction deals with special issues (pp. 35-38) and the fourth section titled 'Language, Scripts and Arrangement of Legends' (pp. 38-52) discusses in some detail the forms of the Greek legends, the mode of adoption of the various epithets by different rulers, and the question as to who amongst the Indo-Greek kings introduced the bilingual currency by literally translating the Greek legends into Prakrit. (p. 39).

Section fifth of the Introduction titled 'Monograms' (pp. 52-62) and its two exhaustive supplements in the form of Appendix II (pp. 214-33) and Appendix III (pp. 234-55) supply almost all the necessary information for a systematic subjective study of the vexed problems of Indo-Greek monograms. The problem of forged coins is discussed in the last section. (pp. 62-68).

Catalogue of Coins, which forms the second part of Lahiri's book, is a Corpus of almost all the coins of the Greek rulers of Bactria and India, known to the author.

The Part III, which comes last, consists of five Appendices : (1) coin-types, (2) monograms and kings, (3) kings and monograms (mentioned above), (4) titles and epithets of Indo-Greek rulers, and (5) problem of the attribution of coins bearing certain royal names.

Only two years later than the publication of Lahiri's *Corpus* Mehta Vasishtha Dev Mohan published his *Indo-Greek Coins*.¹ But it is only a brief study of the main features of these coins, though its author claims to have found new data about the Indo-Greeks in the *Mahābhārata* and other texts.

1. Ludhiana, 1967.

Oliver Guillaume

The contribution of Oliver Guillaume, a French scholar, to Graeco-Bactrian and Indo-Greek numismatics is somewhat unique. His work *Analysis of Reasonings in Archaeology : The Case of Graeco-Bactrian and Indo-Greek Numismatics* was originally published in French in 1987. Its English translation prepared by Osmund Bopearachchi appeared from Delhi in 1990. It contains a learned Foreword by J.C. Gardin, on whose valuable *Archaeological Constructs : An Aspect of Theoretical Archaeology* it is primarily based.

In his Introduction Guillaume explains that his aim is to consider studies in Graeco-Bactrian numismatics from the methodological viewpoint and not with respect to their substance. His effort seems directed toward finding out certain rules helpful for strengthening the association of archaeological observations with the historical hypotheses drawn from them.

The work of Guillaume is divided into two Parts : examination of the (i) catalogues and (ii) historical reconstructions. Part I deals with the critical examination of numismatic Catalogues. The Catalogues examined by Guillaume in this Part include (1) A. Cunningham, *Coins of Alexander's Successors in the East : Part I : The Greeks of Bactria, Ariana and India*, first published from London in 1884; (2) Percy Gardner, *The Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*, first published from London in 1886; (3) V.A. Smith, *Coins of Ancient India : Catalogue of the Coins in the Indian Museum, Calcutta*, Vol. I, Oxford, 1906 ; (4) R.B. Whitehead, *Catalogue of Coins in the Punjab Museum, Lahore, Vol. I : Indo-Greek Coins*, Oxford, 1914; (5) A.N. Lahiri, *Corpus of Indo-Greek Coins*, Calcutta, 1965; and (6) M.Mitchiner, *Oriental Coins and Their Values : The Ancient and Classical World, 600 B.C. – A.D. 650*, London, 1978. Guillaume makes a detailed study of the methodologies adopted by the authors of these catalogues as to the definition of the corpus, sub-sets, sifting and describing the coins in respect of the materials, weights, axis orientation, overstrike, shape,

dimensions, type, border, legend, monogram and provenance as well as defining their obverse and reverse. He has discussed in Chapter 1 of this Part how the different numismatists have defined their respective corpuses of coins, in Chapter 2 how they have described the coins and in Chapter 3 their classification of the coins. He has attempted to standardize, as far as practicable, the series and the individual number when that is given using the word 'series' to indicate the various classes according to which the authors have grouped the coins of a king. Smith and Whitehead use the word 'type', while though no special term has been used by Cunningham, Gardner and Lahiri to designate the classes, they have distinctly differentiated them by a suitable numbering. Here Guillaume shows that though numismatic data available is the same, it is presented and described by different cataloguers in different ways, there being no fixed terminology and the order in which the various variables are noticed, resulting, at least in some cases, in great difference of opinion and sometimes chaos.

Part II of Guillaume's work aims at a critical study of the methodologies adopted by two well-known historians of the Indo-Greeks, viz. W.W. Tarn (*Greeks in Bactria and India*, Cambridge, 1951) and A.K. Narain (*The Indo-Greeks*, Oxford, 1957) and their reasonings based on the variables including the number and material of coins, overstrike, type (including the royal portrait and other features), legend (including aspects like language, royal epithet and palaeography), weights and standard, monogram, provenance and style of coins. This Part has two chapters, Chapter 4 containing discussion on Preliminary Definitions and Chapter 5 Inventory of Numismatical Reasonings. Here Guillaume shows that what is true of Cataloguers is also true of the historians who draw different deductions, sometimes diametrically opposed to one another, from the same variables. Surprisingly the same historian uses the same variable for drawing one conclusion at one place and, quite inconsistently, a different one at another place. This has resulted not only in greatly differing views as to vital questions including the length of the reign of

various kings, extent of different kingdoms and personalities of kings but also in duplication and multiplication of kings with one and the same name and suggestions regarding supposed relationships between different kings and their family relationships. This is purely due to the presumptions and subjective approach of the concerned historians who, in order to get support for their suggestions, choose one evidence to the exclusion of others and impose upon it an otherwise unwarranted interpretation. It is, therefore, imperative that some order is introduced by objectively interpreting the available evidence. Obviously, barring a few cases, it is not possible to determine even a bare chronology of the Indo-Greeks, but it would be better not to impose one born out of sheer imagination. We should wait for definite evidence that may come to light in future. Guillaume strongly pleads to define properly the variables and restore logic and order in historical deductions. His conclusion is that as things stand at present, any progress in Graeco-Bactrian and Indo-Greek historiography seems to be inevitably linked to the establishment of typologies on the basis of the variables used by cataloguers in their description of coins. It is a safe bet that a fair number of hypotheses put forward by the historians will collapse if corrective measures are adopted.

O. Guillaume has also edited a collection of eight papers titled *Graeco-Bactrian and Indian Coins from Afghanistan* (New Delhi, 1991). These papers, written by French scholars on Bactrian and Gandhāran Greek and silver punch-marked coins from Afghanistan, have been translated, wholly or partly, from French into English. Its first two Chapters which deal with Mir Zakah and Qunduz hoards are the summaries of the original publications. Chapter 3 is concerned with the Al Khanum 1970 hoard. It contains 683 coins — 677 silver punch-marked and 6 of Agathocles. The six specimens of Agathocles are discussed in Ch. 4. They have on the obverse the Greek legend *Basileos Agathocles* and the figure of Balarāma standing on a horizontal line, holding *hala* in his left and *gadā* in the right hand and sword hanging down from waist at left. Their reverse bears Brāhmī legend *Rājane Agathuklayesa* and

the portrait of Kr̥ṣṇa in the same fashion but holding *chakra*. These coins weigh between 2.33 and 3.307 gms. The technique employed for their manufacture is partly that of the punch-marked: the flan is a cut off the silver-sheet and the dies are prepared by the Greek artist. It is suggested that the whole treasure was buried twice; first 'during or immediately after Agathocles' reign, i.e. about 170 B.C.' and again 'at the time of the final withdrawal from site, some time after the fall of the Greek power towards 130 B.C.' But strangely not a single coin minted during the forty intervening years finds a place in this hoard.

The Chapters 5 and 6 discuss the coinage and the historical significance of Al Khanum 1973 hoard. It comprises 63 silver tetradrachms of Attic standard of which, 14 and 49 were Greek and Bactrian-Greek respectively (11 of Diodotus, 27 of Euthydemus I, 3 of Demetrius I, 1 of Euthydemus II, 3 of Agathocles, 2 of Antimachus I, 1 of Apollodotus I, and 1 of Eucratides I). In Chapter 5 a reference is made to another hoard found in 1974 not far from Al Khanum. It consisted of 19 and 122 Greek and Bactrian-Greek coins (11 of Diodotus, 79 of Euthydemus I, 11 of Demetrius I, 1 of Euthydemus II, 7 of Agathocles, 3 of Antimachus, 9 of Eucratides and 1 of Lysias).

The last two Chapters treat the stray coins found from the Al Khanum excavations. The collection comprises 224 legible coins. These include 77 Bactrian-Greek and 28 punch-marked coins. Ch. 8 gives a brief outline of Bernard's book.

S.R. Goyal

About three years ago S.R. Goyal, who has recently produced several monographs on ancient Indian numismatics, also published his *The Dynastic Coins of Ancient India* (Jodhpur, 1995) containing a remarkable chapter on the Graeco-Bactrian and Indo-Greek coins (reproduced in his magnum opus *The Coinage of Ancient India*. (Jodhpur, 1995, pp. 205-31). The Chapter is divided into fourteen sections : I. Historical Background; II. Historiography of the Indo-Greek Coinage; III. Salient Features of the Indo-Greek Coins : Their Artistic Merit; IV. Metals Used;

V. Weights and Denomination; VI. Shapes and Design; VII. Mode of Manufacturing; VIII. Royal Portraits; IX. Divinities; X. Special Devices; XI. Indian Types; XII. Legends; XIII. Monograms; and, XIV. Some Select Coin-Types of the Indo-Greek Kings. Here Goyal not only discusses all the important aspects of the Indo-Greek numismatics but also incorporates the results of most of the recent researches on the subject. Perhaps no other book on ancient Indian numismatic studies gives so much dependable information on the Indo-Greek coins in a capsule form.

Goyal begins his analysis of the Indo-Greek coinage with their historical background. As about forty kings or more have to be placed in a period of less than two centuries, it appears certain that many of them ruled contemporaneously. The coins being almost the sole source of information for the Indo-Greeks, it is very difficult and tiresome to reconstruct their history. The historians of the Indo-Greeks, including W.W. Tarn, A.K. Narain, D.C. Sircar and many others, have proposed extremely varying reconstructions of their relationships and history. They all, however, agree that the greatest of the Indo-Greek rulers was Menander who is known to the Indian tradition as a devout Buddhist.

While discussing the general features of the coins struck by the Greek kings of India, Goyal points out that in artistic merit they very often surpass their Seleucid prototypes. However, when their rule was mainly confined to India and their contacts with Bactria and West Asia became weak, their coins underwent an appreciable change in their fabric and appearance, as well as in their weights and sizes and sometimes in their shape, as in India proper first-rate artists were not easily available. The introduction of the legend on the obverse also put a limitation to their freedom of work. With the passage of time, as the Greek kings of India gradually spread their hold towards the east and lost contact with Bactria, degeneration set in the artistic quality of their coins.¹

The Bactrian and the Indo-Greeks issued their coins mainly in silver.

1. Goyal, S.R., *The Coinage of Ancient India*, pp. 214-15.

Copper was used for minor coins. Gold coins were issued very sparingly by Diodotus I and II, Euthydemus I, Eucratides and Agathocleia. Nickel was used by Euthydemus II, Pantaleon and Agathocles. However, these nickel coins contain only 20% nickel and have as much as 80% copper. Only one king, Strato II, is known to have used billon and lead for his coins.¹

The standard denomination of gold coins was stater. It weighed 132 grains according to the Attic standard. The standard unit of silver coins was drachm which weighed 66 grains (half of 132 grain stater). Coins of lower denominations have come down to us in much larger numbers than those of the higher ones. The existence of higher denomination coins, such as gold staters and silver drachms and tetradrachms, may indicate greater prosperity.²

The Graeco-Bactrian and the Indo-Greek coins are usually round in shape. Some silver and copper coins are, however, square or rectangular also. Goyal opines that probably as a result of Indian influence, Apollodotus and Philoxenus issued some square silver drachms.³

Both in Bactria and India the Greeks produced coins by the striking process. For this they used separate engraved dies for the obverse and reverse devices. No two Graeco-Bactrian coins appear to be similar in minute details.⁴

The obverse of the Bactrian coins bore the bust of the king and reverse the figure of the deity (or, in exceptional cases, a horseman, owl, bull, etc.).

On the Indo-Greek coins the bust of the king is always shown to the right wearing a diadem. Diadem was a sort of band or ribbon tied round the tiara of the king. Its two ends are shown as flying or falling behind the royal head.

1. *Ibid.*, pp. 215-16.

2. *Ibid.*, p. 216.

3. *Ibid.*, pp. 216-17.

4. *Ibid.*, p. 217.

According to Goyal, the Greeks, being a race of sculptors, always struck their coins in unusually high relief. This sculptural effect is specially prominent on Bactrian coins. The Graeco-Bactrian artist was also eager to delineate faithfully, sometimes almost like photographs, the features of his royal master. On some series of bigger coins the king appears even in different stages of manhood on the different pieces issued during his reign. Youthful portrait of Euthydemus I of Bactria on one set of coins and his appearance as a man of ripe old age on another set indicates a long reign.¹ Menander and Strato I both began to issue coins at a very young age : their earliest portraits represent them as boys in their 'teens. Strato I lived upto a ripe old age. His coin-portraits represent him in all stages of life right up to a hoary old age with toothless jaws and sunken cheeks.² Elephant scalp as head dress is characteristic of Demetrius I. Whenever it reappears we are inclined to associate the ruler with the family of Demetrius.³ Eucratides' busts, with shoulders sometimes draped and sometimes bare, show transitional stage. "This knowledge helps us in assigning obscure rulers to one or the other of these two epochs."⁴

The Indo-Greek coins usually contain the bust of someone on the obverse and the figure of a deity on the reverse. Among the popular divinities shown on the reverse Zeus, Athena, Heracles, Discouroi, Appolo, Poseidon and Nike are included.⁵ Normally the portraits of divinities are not accompanied by descriptive legends, except on some coins of Eucratides.

The religious affiliations of some of the Indo-Greek kings can be deduced, or confirmed if otherwise known, from their coins. The

1. Compare his portrait in *CHI*, Pl. III.1 and III.2.

2. Pl. III, 6-7 and *BMC*, Pl. XI, nos. 8 and 9, for Menander and Pl. IV, 3-4 and A.K. Narain, *The Indo-Greeks*, Pl. III for Strato.

3. Goyal, *op. cit.*, p. 218; Mehta, V.M.D., *Indo-Greek Coins*, Ludhiana, 1967, p. 17.

4. *Ibid.*

5. For details see Goyal, *op. cit.*, p. 219.

conversion of Menander to Buddhism is sometimes taken as confirmed by his wheel type coins and his title Dhārmika.

The device appearing on the obverse of the copper coins of Agathocles is usually regarded as the figure of a Buddhist stūpa. It is really a six arched symbol surmounted by a star and has been found on the punch-marked, cast, local and tribal coins, as well as on the coins of the Western Kshatrapas and the Sātavāhanas. Theobald opines that they are reliquaries, one in each chamber, of a stūpa. Allan, however, thinks that it represents a mountain. An eight-spoked chakra has been shown on the obverse of certain copper coins of Menander. According to A. Ghosh, each of the eight spokes represents one of the eightfold paths (*Aṣṭāṅgika Mārga*) of the Buddhist philosophy. Cunningham, Whitehead and A.K. Narain hold the view that the epithet dikaaios (Dhārmika) appearing on certain copper and silver coins of Agathocles suggest the Buddhist leanings of that king. But if dikaaios suggests Buddhist leanings then we must also accept that apart from Agathocles five other Indo-Greek kings, viz. Archebius, Heliocles, Peucolaus, Strato I and Theophilus were also Buddhists because they all had adopted the same epithet. We, of course, have the evidence of the *Milinda Pañho* and the Shinkot Casket Inscription to prove Menander's leanings towards Buddhism, but no such evidence is available for other Indo-Greek rulers mentioned above.¹

Besides regular series of gold and silver types of the Indo-Greeks, Goyal also discusses the so-called commemorative or pedigree coins, the victory coins, and the joint-issues.

Many Indo-Greeks kings issued Indian types also. According to Goyal, the fact that the Indo-Greeks came under the influence of Indian traditions is proved by the copper coins of Agathocles which have come to light in the excavation conducted by Paul Bernard at Al Khanum in the

1. See my research paper 'Buddhist Symbols and Buddha Image on Ancient Indian Coins,' *JNSI*, XLIX, Pts. i and ii, 1987, pp. 110-11.

Oxus valley. They bear the effigy of Vāsudeva (Kṛṣṇa) with *chakra* on one side and that of Balarāma with a plough on the other.¹ Here we have the earliest anthropomorphic representation of these Hindu gods in the realm of art.

In India the Indo-Greeks were the first to issue coins with legends written on them. On the coins of Euthydemus and his predecessors the legends are invariably on the reverse in Greek language and script. Bilingual and bi-scriptal legends with Greek legends on the obverse and Prakrit translation in Kharoshthī script on the reverse appear from the time of Demetrius. It is a sure proof that now the Indo-Greek dominion included Kharoshthī using Indian areas also. The Brāhmī script occurs on the coins of Pantaleon and Agathocles only.

On the assumption that the western-most limit of Brāhmī ended somewhere in the east Punjab, some scholars have placed such coins, and also the rulers who issued them, in this part of the country. But, according to Goyal, this assumption is fallacious, for ‘‘the Brāhmī script is known to have been in use as far west as the country of the Aśvakas. The Vaṭāśvaka coins attributed to these people invariably carry Brāhmī legends. This tribe occupied a large part of the western Gandhāra including the Swat Valley. Strangely enough, the Indo-Greeks seem to have had a particular antipathy to the use of the Brāhmī script. In the whole range of the Indo-Greek coinage this script appears only on a type each of Pantaleon and Agathocles. These types were minted at Pushkalāvati, a city included in the Aśvaka country. The two types are exactly similar except for the names of the two princes who ruled one after the other for a brief period in the Pushkalāvati region as governors of their father, Demetrius.’’² On all bilingual coins of the Indo-Greeks, with the exception of the two in question, Kharoshthī script is universally used, presumably, it was less offensive to the Greek mind than Brāhmī. In fact, all foreign invaders, such as the Śakas, the Pahlavas, the Kushānas

1. Goyal, *op. cit.*, p.220.

2. *Ibid.*, p. 221.

and the Hūṇas, who followed in the footsteps of the Indo-Greeks, adopted Kharoshthī more readily. According to Goyal, such working of the western mind is also revealed by the attitude of the British rulers of India in recent times towards the descendants of the Brāhmī script. In defiance of the popular sentiments they gave recognition only to the Persian script.

Analysing the theories of Bayer, Cunningham, Gardner, Rapson, Whitehead and Tarn, S.R. Goyal accepts the complex nature of the monograms of the Indo-Greek coins.¹ While the majority of the Greek type monograms are apparently composed of Greek letters, some at least look like symbols. These monograms generally occur on the reverse of a coin. Coins which bear monograms on the obverse alone or both on the obverse and reverse are rare.

Lastly, Goyal also lists some select coin-types of the Indo-Greek kings.² The description of these select types is based on *The Coins-Types of the Indo-Greek Kings* by A.K. Narain.³ Here Goyal gives only short description of the types. Complete legends are given at the head of each section.

All in all, Goyal has touched every aspect of the Indo-Greek numismatics. It is rather surprising, therefore, that he is apparently unaware of the contribution of Oliver Guillaume, discussed above, though latter's works appeared almost four years earlier than Goyal's.

B.N. Mukherjee

B.N. Mukherjee is a well-known historian who has done more work on the Scytho-Parthians and the Kushāṇas than most of the contemporary Indian historians. He has written on the Indo-Greeks as well, whether incidentally or directly. Recently, he has published a detailed note on the Indo-Greek history and coins which forms a part of his 'Commentary' on the *Political History of Ancient India* of H.C. Raychaudhuri (New

1. *Ibid.*, pp. 222-23. V.M.D. Mehta has recorded 161 monograms (*op. cit.*, p. 50).

2. Goyal, *op. cit.*, pp. 223-31.

3. *JNSI*, XVI, pp. 297 ff.

Delhi, 1997). Mukherjee has claimed that his 'Commentary' generally revises, updates or rectifies the relevant sections of the text of Raychaudhuri. But almost everywhere he has singularly failed to achieve this objective, at least so far as updating the text of Raychaudhuri is concerned. Raychaudhuri's work is famous for its detailed references and the inclusion of the results of the recent-most researches. But B.N. Mukherjee has not been able to utilise or even mention many of the works of the scholars who wrote on the Indo-Greeks after the demise of Raychaudhuri and before the composition of the 'Commentary' of Mukherjee on the work of the great savant. Among the important works on the Indo-Greek history and coinage which Mukherjee should have discussed in his detailed note mention may be made of Buddha Prakash, 'A New Approach to the Indo-Greeks', *Studies in Indian History and Civilization*, Agra, 1962, pp. 209-39; Mehta, V.M.D., *Indo-Greek Coins*, Ludhiana, 1967; D.C. Sircar, *Studies in the Yuga Purāṇa and Other Texts*, Delhi, 1974; G.R. Sharma, *Reh Inscription of Menander and the Indo-Greek Invasion of the Gaṅgā Valley*, Allahabad, 1980; Oliver Guillaume, *Analysis of Reasonings in Archaeology : The Case of Graeco-Bactrian and Indo-Greek Numismatics*, translated from French by Osmund Bopearachchi, New Delhi, 1990; and S.R. Goyal, *The Dynastic Coins of Ancient India*, Ch. 1, Jodhpur, 1995. Otherwise also there is hardly anything new in Mukherjee's detailed note.

M. Mitchiner and Morton Smith

In 1997 was also published from New Delhi *Kings and Coins in India : Greek and Śaka Self-Advertisement* by R. Morton Smith. In the words of Morton Smith himself this "work is intended to fix the Indo-Greek, Śaka and Parthian kings" especially for the beginning and the end. Earlier Smith published his suggestions in brief in *ABORI*, Diamond Jubilee Volume, 1977-78. There he could not indulge in detailed argument. In this work he has offered his suggestions with arguments and improvements, for which he has used the works of M. Mitchiner, A.N. Lahiri and Whitehead.

The work of M. Mitchiner titled *The Indo-Greek and Indo-Scythian Coinage* is in seven volumes. It is obviously a monumenal research work of a great savant and has acquired a reputation among numismatists. Unfortunately, we have not been able to consult it. However, Morton Smith does not speak highly of it. “We found,” he states, “a troublesome number of wrong references (in the work of Mitchiner); text and translation differ too often, mint-marks are amalgamated and their drawings in the text often do not resemble the reality or the versions in other catalogues. Indian private collections are ignored, and while MM (Mitchiner) could not be expected to check them personally, their rare or unique coins could not be ignored or dismissed as non-existent or forged. In sum, MM needs far too much checking.” (Mortan Smith, *op.cit.*, p. 14).

Chapter Five

The Imperial Scytho-Parthian and Western Kshatrapa Coinage

Historical Background of the Imperial Scytho-Parthian Coinage

The Bactrian Greeks and Indo-Greeks in north-western parts of India were followed by the kings who bore Scythic names. With them appeared, at a somewhat later date, kings whose name and titles are certainly Parthian. There seems to be no reason whatever for doubting that they were the Śakas and Pahlavas of the early Indian inscriptions and literature. The difficulty of distinguishing between the Scythic (Śaka) and Parthian (Pahlava) dynasties in India during this period is well-known. The proper names afford the only clue of making a distinction between them but they supply no certain guidance, since names belonging to both the tribes are found applied to members of the same family. As pointed out by Thomas “It would seem probable that the tribes from eastern Iran who invaded India included diverse elements mingled indistinguishably together, so that it is not possible to assert that one dynasty is definitely Parthian while another is Śaka.” (*JRAS*, 1906, p. 215). As S.R. Goyal puts it, “After the conquest of Bactria by the Śakas in c. 135 B.C., there was a good deal of intercourse, sometimes of a friendly and sometimes of a hostile character, between them and the Parthians, who occupied the neighbouring territory. This may account for the Parthian influence which appears in certain features on the coins of the Śakas.”¹

1. Goyal, S.R., *The Dynastic Coins of Ancient India*, Jodhpur, 1995, p. 28.

Imperial Scytho-Parthians

Two main lines of these Scytho-Parthian invaders are known from their coins. One, of Maues, in the Punjab and its adjoining lands, and the other, of Vonones and his associates in Kandhar (Arachosia) and Baluchistan. The coins of Maues, who was the first of what may be called the Azes group of kings, were minted in silver and copper. His silver, however, is not plentiful. His commonest coin is of copper bearing an elephant's head on the obv. and caduceus (staff of the god Hermes) on the reverse. This type of coins bears only the Greek legend *Basileos Mayou* on the rev. and reminds us of the early Bactrian coins. All the other coins are bilingual. They bear either this simple legend or a more grandiloquent one — *Basileos Basileon Megalou Mayou* — and their Prakrit equivalents — *Maharajasa Moasa* and *Rajadirajasa Mahatasa Moasa* — in Kharoshthī.¹

Vonones, the first of the Parthian emperors, was almost a contemporary of Maues and held sway over Arachosia. His silver coins show on the obv. king on horseback with spear in the right, and on the rev. Zeus standing, with a long sceptre and thunderbolt in hands. On the copper coins standing Heracles crowning himself is shown on the obv. and Pallas Athene standing left with shield and spear on the reverse. *Basileos Basileon Megalou Ononou* is the Greek legend on all his coins and on the rev., on one set of coins, the Kharoshthī legend is *Maharajabhrata Dhramikasa Spalahorasa* and on the other *Spalahoraputrasa Dhramikasa Spalagadamasas*. These legends indicate that Vonones first ruled in association with his brother Spalahora and then with his nephew Spalagadama, the son of Spalahora. It is also possible that these rulers were subordinate to Vonones.²

After Vonones, Spalyris, perhaps his brother, ruled along with Spalagadama, the son of Spalahora, for a short period. Then he issued coins independently in his own name. He is found again associated with

1. *Ibid.*, p. 29.

2. *Ibid.*

a king named Azes. While the legend on earlier coins bear the higher title *Basileos Basileon*, the coins issued alongwith Azes have for him only the title *Basileos* and the rev. Kharoshthī legend mentioning Azes uses the title which was equivalent to that of Spalyris. This shows that the two rulers had an equal status; probably Spalyris was the last member of the Vonones family.

Azes (I), the associate of Spalyris, also issued silver tetradrachms and drachms and round and square copper coins in his own name, independent of any other ruler. He was succeeded by Azilises who issued an extensive series of coins following his two predecessors, Maues and Azes I. Azilises was followed by Azes II who also issued some coins in association with one Indravarmā and then with the latter's son strategos Áspavarmā in the western area of his domain.¹

Azes II was succeeded by Gondopharnes I, a Parthian. He is mentioned in the traditional stories connected with the Apostle St. Thomas. He issued coins of copper; his silver coins are almost absent. His coins in association with Áspavarmā, who was formerly associated with Azes II, are also found. This is an important piece of evidence as it shows a connection between the two dynasties. After Áspavarmā, his nephew Sasa appears on his coins as associate king. Sasa also issued some silver coins found from Taxila with a Parthian bust.

Sapedana and Satavastra are also known as rulers of the Taxila region from the coins found in excavations. They ruled either before or after Sasa. Their coins are very similar to those of the latter.

Gondopharnes was succeeded by his nephew Abdagases. After him, Orthagnes, Pacores, Gondopharnes II, Arsaces and Sanabares are the other Parthian rulers whose coins are known on the pattern of Gondopharnes I. The Śaka-Pahlava hold in India ended with the advent of the Kushāṇas some time in the first century A.D.²

1. *Ibid.*, p. 30.

2. *Ibid.*, p. 31.

Historical Background of the Kshatrapa Coinage : Kshatrapa Institution

During the Śaka-Pahlava occupation of north-western India, the institution of kshatrapa, which was originally introduced by the Achaemenids, was quite popular. It continued during the Kushāṇa rule as well. The kshatrapas were subordinate rulers with varying degrees of political importance. Some of them issued their own coins. The title 'kshatrapa' is a Sanskritised form of the Old Persian title 'khshathrapāvan', 'protector of the land'. Thus, kshatrapa is a borrowed word used to denote the holder of an office which was of foreign origin. In India, as in Persia, the kshatrapas were originally viceroys of the 'King of Kings' but together with this title there appears in India one of higher rank, viz. that of 'mahākshatrapa', or 'great satrap'. The mahākshatrapa enjoyed greater power and independence than the kshatrapa, but he still usually seems to have acknowledged the suzerainty of a 'King of Kings'. To what extent his power was limited by this suzerainty cannot be exactly determined.

After various satrapal houses had become established in their respective domains it is usual to find a mahākshatrapa and a kshatrapa reigning together at the same time — the latter occupying the status of heir-apparent, and regularly in due course succeeding to the higher office. The long series of dated coins of the Western Kshatrapas enables us to trace the reigns both of mahākshatrapas and kshatrapas with great precision, but their relation to some overlord can only be surmised. With regard to the higher office of mahākshatrapa, it is known — (1) that it could be won by personal achievement (as in the case of Rudradāman I); (2) that it could be contested by two members of the ruling family (as, for example, by Jīvadāman and his uncle Rudrasimha I); (3) that it could be seized by a foreign invader (as by Īśvaradatta, who was probably an Ābhīra); and (4) that it could be in abeyance for long during which period a kshatrapa could rule alone.¹

1. Rapson, E.J., *Catalogue of the Indian Coins in the British Museum, Coins of the Āndhra Dynasty, the Western Kshatrapas, the Traikutaka Dynasty and the Bodhi Dynasty*, London, 1908.

Inscriptions and coins reveal the existence of a number of satrapal families at different centres though the localities of some of the kshatrapas and mahākshatrapas cannot be determined with certainty. The most clearly known centres of satrapal governments are Kapiśā, Taxila, Mathurā and Saurāshṭra-Malwa.

The Western Kshatrapas, the most important of the satrapal kingdoms, flourished in Saurāshṭra-Malwa region and are distinguished from the Northern Kshatrapas of Mathurā. The satraps of Kapiśā are known from an inscription on the Manikyala cylinder. (Dowson, *JRAS*, 1863, p. 244). The Taxila Kshatrapas are known from a copper-plate inscription (*EI*, V, p. 54) and silver coins of Patika. (*NC*, 1889, p. 308). The Mathurā Kshatrapas are known from quite a number of inscriptions and coins issued by them. (Smith, V.A., *Catalogue of Coins in Indian Museum*, Vol. I, pp. 190 ff.; *JNSI*, VIII, p. 33; XXVII, pp. 147 ff., pp. 150 ff.; XXXVIII, pp. 116 ff., XXXVIII, Pt. 2, pp. 60 ff., etc.).

The earliest Śaka kshatrapa of Mathurā was probably Rājuvula who was originally the ruler of some parts of the Punjab. His earliest coins are hemidrachms of highly debased silver which closely resemble the late issues of the Indo-Bactrian kings, Strato I and Strato II. He also issued some lead coins which are more common in the Taxila region and Lakshmī type coins which are more common in Mathurā. He was followed by his son Śodāsa.¹ Then Hagāna and Hagāmasha ruled jointly. The latter also ruled independently.

Advent of the Śakas in Western India

The Jaina sources allude to the advent of the Śakas into Western Malwa from Seistan via Sind and Kathiawar.² These legends also refer to the

1. Allan refers to another Mathura kshatrapa Trṇaḍāsa. But the coin attributed to him by Allan has been assigned to Śodāsa by Richard Saloman. (*JNSI*, XXXVII, pp. 147-49). For the coin of kshatrapa Vajatajama, see B.N. Mukherjee, *ibid.*, XXXVIII, ii, pp. 60-61.

2. Jayaswal, K.P., *JBORS*, XVI, pp. 23 ff.; Jacobi, *ZDMG*, XXXIV, pp. 247 ff.; *JBBRAS*, IX, pp. 139 ff.

advent of Vikramāditya but the historicity of a Vikramāditya ruling in the middle of the first century B.C. cannot be proved. At any rate his coins are not found. Some years ago K.D. Bajpai (*JNSI*, XXVIII, pp. 46-50) discovered some rare coins at Ujjain and Vidiśā containing Scythic names of their issuers such as Hamugama, Valaka, Mahu, Dasa and Sauma, written in Brāhmī of about 100 B.C. on the basis of which he has suggested that prior to the occupation of Malwa by the Kshaharātas and Kārdamakas these early Śakas ruled over this region.¹

The Western Kshatrapas

It is generally believed that the earliest known member of the Kshaharāta family of Western India, whose name appears on coins only, is Bhūmaka. These coins are of copper, and are found in the coastal regions of Gujarat and Kathiawad, and also sometimes in Malwa. Considerations of the type and fabric of the coins and of the nature of the coin-legends, leave no room for doubt that Bhūmaka was succeeded by Nahapāna.

Nahapāna issued coins of both silver and copper. His silver coins apparently imitated, as regards size, weight and fabric, the hemidrachms of the Indo-Greek kings, and in these respects they set a standard which was followed by the Western Kshatrapas for some two hundred and seventy years, and afterwards by the Imperial Guptas. The rev. type of Nahapāna's silver coins is substantially the obv. type of Bhūmaka's copper coins. In all the coin-legends in Greek, Brāhmī and Kharoshthī, Nahapāna bears the title 'Rājā' together with his family designation 'Kshaharāta', but in none of them is he styled 'kshatrapa' or 'mahākshatrapa'. From the testimony of epigraphs, however, he is known to have been a kshatrapa in the year 42 and a mahākshatrapa in

1. Cf. Also Sethi, R.K., *JNSI*, XXXVII, pp. 150-51; Dilip Rajgor in his article 'Recent Researches in Kshatrapa Numismatics' (*Numismatic Studies*, 1; ed. Devendra Handa, New Delhi, 1991, pp. 33 ff.) and in *Studies in the Coinage of the Western Kshatrapas*, written by him and Amiteshwar Jha (Bombay, 1992) also reports the coins of Aghudaka (or Abhedaka) Iyana who was most likely a predecessor of Bhūmaka.

the year 46. The Jogalthambhi hoard in the Nasik Dist. has brought thousands of his silver coins to light. His copper coinage is, however, very rare.

The Kshaharātas were replaced in Western India by the Kārdamakas. Chashtana, the founder of the dynasty, struck hemidrachms like those of Nahapāna on the Greek model and closely resembling the coins of Apollodotus. His coins preserve the remains of Greek characters on the obv. and on their rev. are found inscriptions in both Brāhmī and Kharoshthī. But after the death of Chashtana Kharoshthī inscription disappears. The hemidrachms of his successors are found in great abundance throughout Western India. On the rev. of all of them appears the Buddhist chaitya copied from the Sātavāhana coinage but the portraits on the obv. are distinctly Scythian in appearance. These coins are of special historical importance, for in the reign of the fifth kshatrapa Jivadāmana dates in the so-called Śaka era (which started in 78 A.D.) recording the year of issue, were added to the inscription; and these are of the greatest service in determining the date of the events here and elsewhere in India down to the close of the fourth century A.D. when the Imperial Guptas conquered Western India and the long monotonous series of Western Kshatrapa coins came to an end. The Guptas in their turn struck silver of the same type giving these degenerate descendants of the Greek hemidrachms a further lease of life. When imported by the Guptas from their Western to central dominions, they were imitated by several post-Gupta dynasties, including that of the Maukharis.

Beginnings of the Study of Scytho-Parthian Coinage

An interest in the study of Scytho-Parthian coinage originated in the latter part of the second quarter of the nineteenth century with the discovery of coins belonging to the Indo-Scythians by Gen. Ventura at Manikyala tope in Punjab in 1830. In the course of Burneas' explorations on his route to Bokhara and the successful field-work of Swiney at Karnal, a number of Indo-Scythian coins were collected. At that time the coin-

collectors and numismatists could hardly distinguish between the coins of the Kushāṇas and those of the Indo-Parthians and Indo-Scythians. The coins discovered in Afghanistan by Masson were published in his *Memoirs*. (*JASB*, 1834-36). A descriptive list of Bactrian and Indo-Scythian coins, compiled chiefly from the *Memoirs* of Jacquet and Rochette, was included by Mionette in the 8th *Supplement* to his work on Classical Numismatics in 1837. (*Description de médailles grecques et romaines*). Christian Lassen published in 1838 from Bonn his work in German, which was translated by Roer in *JASB* in 1840 while Wilson published from London in 1841 his *Ariana Antiqua* embodying a summary of researches in ancient Indian numismatics till that date. James Prinsep's essays on Bactrian and Indo-Scythian coins, originally published in *JASB* in the 'thirties of the nineteenth century, were edited by E. Thomas as *Prinsep's Essays on Indian Antiquities*. (Vols. I and II, London, 1858).

In the later half of the nineteenth century discovery, collection, cataloguing and systematic study of the Scythic coins began on an intensive scale. A. Cunningham's *Archaeological Survey Reports* (1862-1884) in twenty-three volumes provided a comprehensive survey of the geographical distribution of Scythian coins. In 1886 Percy Gardner published his *Catalogue of the Coins of the Greek and Scythic Kings of Bactria and India in the British Museum*, from London. This *Catalogue* is still a must for the students of this subject.

Progress of the Numismatography of Scytho-Parthian Rulers

After the publication of Gardner's *Catalogue* a number of works were brought out by different scholars on the coinage of ancient India which contained a study of the coins of the Scytho-Parthian rulers of India as well. Among them are included Cunningham's *Coins of the Indo-Scythians and Kushāṇas*, Pts. I and II (London, 1892-94) and *Coins of Ancient India* (London, 1891); E.J. Rapson's *Indian Coins* (Strassburg, 1898); V.A. Smith's *Catalogue of the Coins in the Indian Museum, Calcutta*, Vol. I and R.B. Whitehead's *The Punjab Museum Catalogue of*

Coins, I (Oxford, 1914). Further, many works by learned scholars on ancient Indian history contained chapters on the Scythian and Parthian rulers or/and their coins. They include *A Cambridge History of India*, Vol. I, ed. by Rapson (Cambridge, 1922), specially its Chapter XXIII titled 'The Scythian and Parthian Invaders'; *Political History of Ancient India* by H.C. Raychaudhuri (Calcutta, 1938); *Development of Hindu Iconography* by J.N. Banerjea (Calcutta, 1941) and 'The Scythian Period' by Von Lohuizen-de Leeuw. *The Greeks in Bactria and India* by W.W. Tarn (Cambridge, 1938) also discusses many a problems of the history and coins of the Scythian rulers. As regards research papers they are too numerous to be enumerated. However, some of them may be mentioned here. For example, A.S. Altekar, 'Some Rare and Interesting Indo-Bactrian and Indo-Scythian Coins', *JNSI*, VI, 1944 (1945), pp. 11-13; J.N. Banerjea, 'Indian Elements on the Coin Devices of Foreign Rulers of India', *IHQ*, XIV, pp. 293-308 and 'Notes on Indo-Scythian Coins', *JASB* (NS), IV, 1908; R.B. Whitehead, 'The Dynasty of General Áspavarmā', *NC*, VI, Series IV, 1944, pp. 99-104; L. Bachhofer, 'On Greeks and Śakas in India', *JAOS*, Vol. 61, 1941; D.R. Bhandarkar, 'Indo-Parthian Dynasty of Vonones', *IC*, VIII; Sten Konow, 'Notes on Indo-Scythian Chronology', *JIH*, XII, 1933; J.H. Marshall, 'Greeks and Śakas', *JRAS*, 1947; V.A. Smith, 'The Indo-Parthian Dynasties', *ZDMG*, 1906; and 'The Śakas in Northern India', *ZDMG*, 1907; and F.W. Thomas, 'Śakashān', *JRAS*, 1906.

In the last few decades, that is roughly in the post-1947 decades, work on the coinage and history of the Scytho-Parthian rulers of India has been rather sluggish. Some observations on them were made in *The Indo-Greeks* of A.K. Narain while their most detailed treatment came from the pen of J.N. Banerjea in his chapter titled 'The Scythians and Parthians in India' (pp. 186-221) and a part of his chapter 'Coinage' (pp. 786-88) written for *A Comprehensive History of India*, Vol. II, published from Bombay in 1957.

In recent years some work on this subject has been done by B.N.

Mukherjee. In 1969 he produced *An Agrippan Source — A Study of Indo-Parthian History* from Calcutta. Its Chapter V titled 'The Arsacids in the Indian Borderlands' (pp. 61-156) and five Appendices captioned 'The Group of Azes I and North-Western India', 'The Date of Gondophares I', 'Maues and the Arsacids', 'The Date of the *Stathmoi Parthikoi*' and 'Arsacids, Indo-Parthians and Kushāṇas' deal with several problems connected with the Indo-Scythian and Indo-Parthian history and coinage. He has made some important observations on the Indo-Scythians and Indo-Parthians in his 'Commentary' on Raychaudhuri's *Political History of Ancient India* (pp. 696-704, Delhi, 1996) and also at relevant places in his *The Rise and Fall of the Kushāṇa Empire*. (Calcutta, 1988).

Studies in Western Kshatrapa Coinage : The Early Phase

The Western Kshatrapas ruled over Western India almost continuously for more than three hundred years. Excepting a few of them, such as Chashtana, Rudradāman I and some others, who are mentioned in inscriptions also, all the other Western Kshatrapas and their dates are known only from their coins. The bulk of these coins are in white metal and are uniform in size and standard though some Western Kshatrapa kings issued coins in copper, potin and lead also.

As noted above, from the reign of Jivadāman dates in the Śaka era (which started in 78 A.D.) recording the year of their issue were given on the coins. Further, these coins taken together provide us an unusually full dynastic and succession list, though there are still many gaps in their genealogy and chronology. Some of these gaps were filled by later discoveries and some would hopefully be filled by the data which would come to light in future.

The Western Kshatrapa coins have been the subject of study since the nineteenth century. In 1890 Bhagawanlal Indraji wrote a lengthy paper on the Western Kshatrapas (*JRAS*, 1890, pp. 639 ff.) which was posthumously edited with some modifications by E.J. Rapson. While editing it Rapson made a few amendments in the readings of coin legends and their interpretations. In 1896 was published in the *Bombay Gazetteer*

(Vol. I, Pt. 1, pp. 20 ff.) a detailed history of the Western Kshatrapas, also prepared by Bhagawanlal Indraji with the help of inscriptions and coins that were available at that time.

In 1899 the Uparkot hoard of 1200 coins of the Kshatrapa kings (of dates 203-376 A.D.) was described by H.R. Scott. (*JBBRAS*, XX, pp. 201 ff.). He classified the coins according to their dates and names of kings. Scott also studied the famous Jogalthambhi hoard of Nahapāna's coins (*JBBRAS*, XXII, pp. 223 ff.) numbering about 15000, of which 13250 were examined by him.

A landmark in the studies of the Kshatrapa coins was the publication in 1908 of E.J. Rapson's *Catalogue of Indian Coins in British Museum* which includes, among others, the Western Kshatrapa coins. This *Catalogue* still remains a standard work on the coins in question. The details given in it are quite meticulous and so far no other work of such a detailed nature has appeared on the Western Kshatrapa coinage except probably *Studies in the Coinage of the Western Kshatrapas* by Amiteshwar Jha and Dilip Rajgor published in 1992 from Nasik. Among other early savants who studied Western Kshatrapa coins V.A. Smith and D.R. Bhandarkar were the most important.

Post-Rapson Studies

After the publication of Rapson's *Catalogue* studies on Kshatrapa coins continued. Post-Rapson studies on Kshatrapa coins consisted of research papers published in the *Journal of the Numismatic Society of India*, *Numismatic Supplement*, *Numismatic Digest*, *Indian Numismatic Chronicle* and other journals and in scholarly monographs such as D.C. Sircar's *Studies in Indian Coins*. It is not possible to enumerate them here. Fortunately, S.J. Mangalam has already discussed more important of them published till 1986 in his article 'Numismatography of the Western Kshatrapa Coins'. (*JNSI*, XLIX, 1987, pp. 210-17). As is apparent from his paper in this period D.R. Bhandarkar, A.S. Altekar, G.V. Acharya, A.K. Narain, J.M. Nanavati, H.V. Trivedi, S.L. Katore, P.J. Chinmulgund, V.V. Mirashi, P.L. Gupta, Shobhana Gokhale, B.N.

Mukherjee, A.V. Pandya, Nisar Ahmad, R. Jamindar, S.K. Bhowmik, D.C. Sircar, S.V. Sohoni, K.D. Bajpai, A.M. Shastri, R.N. Mehta, K.N. Momin, K.K. Maheshwari, C. Krishna, M. Mitchiner, Richard Salomon, Dilip Rajgor, Amiteshwar Jha, etc. continued to add to our knowledge of the Kshatrapa coins by reporting new discoveries from excavations or as stray finds noticed in the market or in private collections. Further, they tried to solve the problems of Kshatrapa genealogy, chronology and history by suggesting new interpretations of the numismatic data.

The history of the Western Kshatrapas as known till 1946 was reconstructed by A.S. Altekar in Chapter III of *A New History of the Indian People*, Vol. IV : *The Vākāṭaka-Gupta Age*. (Lahore, 1946, ed. by R.C. Majumdar and A.S. Altekar). In it he discussed their history from c. 170 to c. 400 A.D. An outline of Kshatrapa history upto c. 300 A.D. was given by D.C. Sircar in *The Age of Imperial Unity* (Bombay, 1951, pp. 178-90) while their history in the fourth century was traced by R.C. Majumdar in *The Classical Age* (Bombay, 1954, pp. 46-59). Both these chapters together give an outline of the Kshatrapa history from their rise to the end of their rule.

A history of the Kshatrapas upto c. 300 A.D. was also traced by J.N. Banerjea in *A Comprehensive of India*, Vol. II. (edited by K.A.N. Shastri, Bombay, 1957, pp. 273-92). On the general history of the age of the Sātavāhanas and the Western Kshatrapas V.V. Mirashi brought out an authoritative monograph titled *The History and Inscriptions of the Sātavāhanas and the Western Kshatrapas* (Bombay, 1981) though its treatment of their coins is only cursory. On the views of H.C. Raychaudhuri on Kshatrapa rule as given in the 7th edition of his *Political History of Ancient India* (Calcutta, 1970) B.N. Mukherjee wrote a detailed note in his 'Commentary' on this work published in 1996 from Delhi.

Among other recent works and research articles on the Western Kshatrapa coins and history is included *Western Kshatrapa and Related Coins* by R. Salomon. D. Rajgor in his paper 'Recent Researches in Kshatrapa Numismatics' has read certain coin-legends which are claimed

by him as indicating the existence of a successor of Rudrasimha II. (*Numismatic Studies*, Vol. I, New Delhi, 1991, p. 43). He has also noticed certain dates on some unpublished Kshatrapa coins preserved in private collections and claims that now the last known date for the Western Kshatrapas is 337 (= 415 A.D.) though the names of the issuers of the coins with dates ranging from Śaka year 310 to 337 (= 388-415 A.D.) are not legible. ('An Inventory of Dates Known on the Coins and Inscriptions of the Western Kshatrapas', *Numismatic Studies*, Vol. 2, pp. 87-105). However, B.N. Mukherjee has not accepted the claim of Rajgor 'since his readings cannot be checked'. (Mukherjee, *op. cit.*, p. 762). He has also not accepted the reading of Rajgor regarding the existence of the successor of Rudrasimha III. In *Epigraphia Indica*, XXXVII, p. 203 was published an inscription commemorating a certain Rupiyammā who is said to have been the son of a Mahākshatrapa. But neither his coins are found nor it is definitely known that he belonged to the Western Kshatrapa group.

Amiteshwar Jha and Dilip Rajgor

In recent years the best work which has appeared on the Western Kshatrapa coins is the *Studies in the Coinage of the Western Kshatrapas* (Nasik, 1992) by Amiteshwar Jha and Dilip Rajgor. Till now the most standard work on the subject has been Rapson's *Catalogue* published in 1908. But as noted above, since its publication many new discoveries have been made in the form of new names of the Kshatrapa rulers, their dates and types. Some of them have been published in the form of articles, but many of them have remained unpublished. The work of Jha and Rajgor seeks to incorporate all the new coins from various coin-collections, mostly private, which came to their notice. However, Jha and Rajgor candidly admit that though their work is a sort of *Corpus*, it is not exhaustive as they were not able to study coin collections of many museums and it is quite likely that some of them contain some types not included in their work.

The work of Jha and Rajgor is divided into four chapters followed

by the Catalogue. The first chapter provides a complete history of the Western Kshatrapas. It brings to light new facts and corrects some earlier erroneous notions. The second chapter is a detailed account of the Western Kshatrapa coinage. Among the important facts brought to the notice of scholars in this work are the coins of Abhedaka (or Aghudaka) Iyana, who probably ruled before Bhūmaka and some coins bearing post-310 dates in the Śaka era. According to the discoveries recorded in this work, now the last known date for Western Kshatrapas is 337 (=415 A.D.) though, as noted above, the names of the issuers of the coins ranging from 310 to 337 (=388-415 A.D.) are not legible. The third and fourth chapters are respectively on 'Language and Palaeography' and 'Metallic Analysis'. It is for the first time in the history of Indian numismatics that the analysis of many coins belonging to a particular series has been undertaken. In an Appendix the authors have listed the find-spots of Western Kshatrapa coins and coin-moulds while in the end dates of the Western Kshatrapa coins have been tabulated.

Thus, we find that with an increase in the knowledge of the Western Kshatrapa coins some problems created by the deficiency of the data are solved, but at the same time new problems are posed which in turn await fresh discoveries.

Chapter Six

The Coinage of the Kushāṇas

Historical Background of the Kushāṇa Coinage

The Yüeh-chi, who drove the Śakas out of Bactria about the year 126 B.C., were destined to create one of the greatest empires of the ancient world. Some time after 25 A.D., one of the five tribes of which they were composed, the Kouei Shüang or Kushāṇa, became supreme, and under the leadership of the head of that tribe, Kujula Kadphises, they passed south of the Hindukush and overwhelmed the Pahlavas, then ruling in the Kabul valley. The deposition of the successor of Gondopharnes of the Pahlava kingdom of Taxila must have taken place between 45 A.D. and 64 A.D. and was caused most likely by V'ima Kadphises, the second Kushāṇa king. Sometime after V'ima, most likely from 78 A.D., ruled Kanishka I, whose relationship with V'ima is somewhat uncertain. He was succeeded by Vāsishka, Huvishka, Kanishka II and Vāsudeva I. The names of these rulers are recorded in several inscriptions; and their coins, except those of Vāsishka, are also found. Vāsudeva I was the last great Kushāṇa ruler though his descendents and subsidiary Kushāṇa dynasties continued to rule in parts of North-West India, Afghanistan and Central Asia till the fourth century A.D. A brief introduction to their generally accepted history and coins is given below.

The gold coinage of the Kushāṇas did not cease after the death of Vāsudeva I. The existence of Kanishka III, as distinguished from Kanishka I and Kanishka II, is proved by numismatic evidence only. The existence

of Vāsudeva II is also known from numismatic evidence. Smith has placed Kanishka III and Vāsudeva II in the third century A.D.

Nothing can be said with certainty about the successors of Kanishka III and Vāsudeva II in North-West India. But it seems that the western and central Punjab and tracts on the other side of the Indus were subject to three tribes whose names are given on coins as Shāka, Shīlada, and Gaḍahara (or Gaḍakhra). Nothing is known about their relations with the Kushāṇa monarchs Kanishka III and Vāsudeva II. But the coin-types of the Shākas closely resemble those of the Kushāṇas. The Kushāṇa coin-type of 'king standing and sacrificing at altar' on the obv. and 'enthroned goddess Ardoksho' on the rev. was also adopted on the coins of the Shīladas and the Gaḍaharas who probably ruled in some parts of the central Punjab.

On the coins of the Gaḍaharas are found the names of Peraya, Kirada and Samudra. R.D. Banerji reads 'Perayasa' instead of 'Peraya'. The name 'Kirada' is also found as a variant on the coins of the Kidāra-Kushāṇas. According to S.R. Goyal and many others, the name 'Samudra' occurring on Gaḍahara coins is that of the Gupta monarch Samudragupta. The resemblance between this 'Samudra' coin and the Standard type of Samudragupta's coins is so great that it may not be wrong to surmise that the Gaḍahara tribe acknowledged the suzerainty of Samudragupta.¹

The Kushāṇa power was broken by the Sassanians not too long after Vāsudeva II. The Kushano-Sassanian coins are found generally from the regions from the Oxus to the north of the Kabul valley and in the Kabul valley itself. These gold coins were evolved from the gold coins of Vāsudeva, the last of the Great Kushāṇas, and may be assigned to the period from the third to the fifth century A.D.

In the middle of the fourth century A.D. Kidāra Kushāṇas emerged on the scene. The coins of the Kidāra Kushāṇa series may be classified

1. Goyal, S.R., *A History of the Imperial Guptas*, Allahabad, 1967, p. 174.

into three groups : (a) gold coins of the Kushāṇa type with Brāhmī inscriptions; (b) silver coins of the Sassanian type with Brāhmī inscriptions and very few traces of Pahlavi legends; and (c) copper coins of both Kushāṇa and Sassanian types bearing Brāhmī legends.

The main dynasty of the Kidārites consisting of Kidāra and his son Piro is represented by their silver coins. On the obv. of these coins is depicted the bust of the king while on the rev. is displayed fire-altar surmounted by flames in which bust of Hormizd appears to right. The obv. legend in Brāhmī is either 'Kidāra Kushāṇa Shā' or 'Shā Pirosa'.

Piro type closely resembles the Kidāra type having a few features in common. This resemblance leads one to the conclusion that Kidāra and Piro were next to each other in dynastic succession. Martin suggested that Piro was the son and successor of Kidāra. Probably Kidāra committed to Piro the charge of Peshawar.¹ Elaborating Martin's theory S.R. Goyal has shown that Kidāra, the first ruler of the Kidāra Kushāṇa dynasty, is identical with Daivaputrashāhi of the Prayāga *prāśasti* of Samudragupta, that he was forced to migrate from Bactria to Peshawar region in c. 367-68 A.D., that in Peshawar he accepted the overlordship of Samudragupta, that soon afterwards he defeated the Sassanians twice with the help of his new overlord Samudragupta, that in Peshawar he was invaded by the Hephthalite Huns who came from Bactria, that he left Peshawar in charge of his son Piro and went to stop the Hūṇas and that Samudragupta, his overlord, helped him in this venture. Goyal's reconstruction is consonant with his suggestion that Samudragupta is identical with king Chandra of the Meharauli pillar inscription who is said to have defeated the Vāhlikas (= Bactrians) after crossing the seven mouths of the Sindhu, that is the Saptasindhu region.²

The series of coins commonly designated as 'Puri-Kushāṇa Coins' come from Orissa. The Puri-Kushāṇa coins are crude imitations of Kanishka's coinage. Finds of Puri-Kushāṇa coins in association with

1. Martin in *JRASB (L)*, III (NS), XLVII, pp. 23 ff.

2. Cf. Goyal, S.R., *op. cit.*, pp. 168-80.

the copper issues of the Imperial Kushāṇas raise very important points connected with the question of their date and of the Kushāṇa relations with Orissa. The find of ten coins of Kanishka and Huvishka alongwith the Puri-Kushāṇa coins seems to indicate that they were closely related in time. Long ago R.P. Chanda suggested that the designation 'Puri-Kushāṇa' coins should be changed to 'Oriya-Kushāṇa' coins. The suggested designation is indeed more comprehensive, indicating generally not only the localities where they have been found but also the fact of their having been struck in imitation of the Imperial Kushāṇa coinage.¹

Beginnings of the Studies of Kushāṇa Coinage

Interest in the study of the Kushāṇa coinage and history originated in the second quarter of the nineteenth century, with the discovery of the Kushāṇa coins in the Punjab in 1830 by Gen. Ventura, an army officer in the service of Ranjit Singh. With the publication by Masson of his three *Memoirs* from 1834 to 1836 on the coins discovered by him in Afghanistan (Begram) began a systematic study of the Kushāṇa coinage. The two eminent scholars who utilised numismatic materials in their researches on the history and culture of India were Prinsep and Wilson. Masson's Reports on his excavations were included in Wilson's essay on ancient Indian coins in the seventeenth volume of the *Asiatic Researches* (XVII). A descriptive list of one hundred and forty-three Bactrian and Indo-Scythic coins, compiled chiefly from the *Memoirs* of Jacquet and Rochette, was included by Mionette in the eighth volume of the Supplement to his great work *Classical Numismatics* (1837). In the following year, Lassen published his *Zur Geschichte der Griechischen und Scythischen Konige in Baktrien, Kabul und Indien* from Bonn, which was translated into English by Roer in *JASB*, 1840. In 1841, Wilson gave a summary of numismatic researches up-to-date, and also treated the numismatic and other archaeological materials in his *Ariana Antiqua*.

1. For Puri-Kushāṇa coins see Banerji, A.C., *JNSI*, XIII; Gupta, P.L., *ibid.*, XV, pp. 185-92; *ibid.*, XXXVI, pp. 25-53; Ganguly, D.K., *JNSI*, XXVIII, pp. 6-11; Mitchiner, M.B., *ibid.*, XXXIII, i, pp. 37-43; Behera, K.S., *ibid.*, XXXVII, pp. 76-82.

Alexander Cunningham

In the second half of the nineteenth century numismatic studies were dominated by Alexander Cunningham. His *Archaeological Survey Reports* (1862-1884) in twenty-three volumes provided a comprehensive survey of the archaeological materials including coins and their geographical distribution. He traced Roman borrowings in Kushāṇa coins.¹ The work of Wilson and Prinsep became outdated when Alexander Cunningham's researches in Indian numismatics were published. His *Coins of Indo-Scythians* and *Coins of Later Indo-Scythians* were published in 1892 and 1895 respectively. In these works are found the first comprehensive and scholarly accounts of the Kushāṇa coinage. The second half of the nineteenth century may indeed be described, from numismatic point of view, as the Age of Cunningham. Though some of Cunningham's theories have now become outdated in the light of new discoveries, his observations in general have not lost their value altogether.

C.J. Rodgers, P. Gardner and E.J. Rapson

No comprehensive work on Kushāṇa coinage comparable with that of Cunningham was produced in the last two decades of the nineteenth century. The tendency, during this period was of collecting and cataloguing the coins. In 1879 Von Sallet brought out his valuable work *Die Nachfolger Alexanders des Grossen in Bactrien und Indien* and in 1887 A. Stein gave an account of various types of deities appearing on Kushāṇa coins in his paper 'Zoroastrian Deities on Indo-Scythian Coins' published in the *Indian Antiquary*, XVII, explaining the character of the Iranian deities represented on the reverses of the Kushāṇa coins.

In 1894 C.J. Rodgers published his *Coin Collecting in Northern India* (reprinted in 1983 from New Delhi), which was followed by his *Catalogue of Indian Coins in the Indian Museum, Calcutta*, in 1895 (reprinted from New Delhi in 1985). The first of these works is mainly a

1. *Numismatic Chronicle*, London, Third Series, Vol. XII, 1892.

collection of his 12 articles appearing in the *Pioneer* on coin collecting in northern India. Rodgers served in India for about thirty years and was the Honorary Numismatist to the Government of India in which capacity he acquired great experience of the subject. In his first work he begins with his experience in an Indian market where he noticed a money-changer with 'a large heap of cowries and a vast array of ordinary pice piled up'. He examined them and came to the natural conclusion that "every piece of copper before me must have been struck *by some king, in some place, and in some year or the other.*" Thus, he begins the story of Indian coinage from the earliest times.

Rodgers also worked as Principal for twenty-two years in the Teachers Training College at Amritsar from 1863. During this period he collected nearly 10,000 coins which were later purchased by the Government of Punjab for the Lahore Museum. He catalogued the collection in four parts of which part III is titled *Graeco-Bactrian and Other Ancient Coins*. It deals not only with the coins of the Indo-Greeks, Śakas, Pahlavas, Kushāṇas and Sassanians, but also with the ancient Punch-marked series, Tribal and Local coins, and the coins of the Guptas as well. This collection cannot be called exhaustive but it is fairly representative.

In the year following the publication of Rodgers' *Catalogue*, that is in 1896, Percy Gardner brought out his *British Museum Catalogue of Coins of the Greek and Scythic Kings of Bactria and India*. Gardner for the first time made known to scholars metal, size, weight, type, legend, symbols and monogram pertaining to each Kushāṇa coin in the British Museum. It is still an indispensable work on the subject. In 1897 E.J. Rapson published his remarkable monograph, *Indian Coins*, containing a survey of Indian numismatics, including the Kushāṇa coinage, more or less based on the lines of Cunningham's researches.

London Seminar (1913) on the Date of Kanishka

One of the major problems of Kushāṇa history from the very beginning has been the fixation of the date of the accession of Kanishka I. It is

important from the point of view Kushāṇa numismatic history as well because, on the one hand, the chronology of the Kushāṇa coinage itself depends much on the date of Kanishka and, on the other, a careful analysis of the numismatic data is required for the solution of this vexed problem. Kanishka I was variously placed by early scholars between 57 B.C. and 278 A.D., quite often a scholar suggesting different dates on different occasions. For example, Smith suggested 78 A.D. in 1911 and 120 A.D. in 1919. In order to sort out this problem an International Seminar was held in June 1913 in London under the auspices of the Royal Asiatic Society in which F.W. Thomas, E.J. Rapson, J.F. Fleet, V.A. Smith, L.D. Barnett, Longworth Dames, J. Kennedy and R.B. Whitehead, etc. participated.¹ The Seminar could not solve the problem to the satisfaction of all but it did succeed in weakening the theory of 57 B.C. in which Fleet, Barnett and Kennedy believed. In the Seminar it was shown with the help of the numismatic data that the Kadphises group of kings flourished before the Kanishka group, for the tradition of biculturalism and bilingualism of the Yavana-Śaka-Pahlava age could not have been discontinued by the Kanishka group only to be re-introduced by the Kadphises group.

R.B. Whitehead, V.A. Smith, B.B. Vidyavinod, D.R. Bhandarkar and R.D. Banerji

In the following years of the first half of the twentieth century further progress in the study of Kushāṇa coinage was made by the publication of detailed catalogues of coins collected in some Indian Museums. The publication of R.B. Whitehead's *Catalogue of Coins in the Punjab Museum, Lahore*, Vol. I, in 1914 dealing with the coins of early foreign rulers in India, of V.A. Smith's *Catalogue of Coins in the Indian Museum, Calcutta*, from Oxford in 1919 and of B.B. Vidyavinod's *Supplementary Catalogue of Coins in the Indian Museum, Non-Muhammadan Series*, from Calcutta in 1923 facilitated critical studies in the field of Kushāṇa

1. *JRAS*, II, 1913, pp. 911-1042.

numismatics. Meanwhile in 1921 D.R. Bhandarkar's *Carmichael Lectures on Ancient Indian Numismatics* came out with his valuable suggestions on some socio-religious and mytho-religious aspects of the Kushāṇa coinage. Other notable contributions of those years include the late R.D. Banerji's *Prāchīna Mudrā* (in Bengali, later translated in Hindi) in addition to his learned contributions to Kushāṇa coinage in the pages of the *Numismatic Supplement of the Journal of the Asiatic Society of Bengal*, and the two chapters, written by Macdonald and Rapson respectively, in the *Cambridge History of India*, Vol. I, published in 1922. Rapson's chapter on Scythian, Parthian and Kushāṇa kings in particular, is indispensable in this field.

The archaeological excavations at Taxila conducted by Sir John Marshall during the years 1912-30 brought to light a large number of coins of the foreign rulers of ancient India, including those of the Kushāṇas in stratified contexts (Marshall, *Taxila*, 3 Vols., Cambridge, 1951). His discoveries conclusively proved the anteriority of the Kadphises group of kings to Kanishka group of kings, and the precedence of the latter to the Later Kushāṇas, Kidārites and Hūṇas. The archaeological material yielded by the excavations at Taxila and other places was utilised by numismatists and historians to solve major problems of Kushāṇa history.

Works on Kushāṇa Numismatics Since 1947

Meanwhile numerous Indian scholars had been working on Kushāṇa numismatics in their individual capacity. They published a large number of research paper on the subject in various journals such as the *Journal of the Numismatic Society of India*. These cannot be discussed in detail here.¹ In 1957 J.N. Banerjea described general characteristics of the Kushāṇa coins in his chapter titled 'Coinage' in *A Comprehensive History of India*, Vol. II (pp. 788-96) published from Bombay. The

1. For a list of such papers published till mid-twentieth century, see *Bibliography of Indian Coins*, Part I (Non-Muhammadan Series) compiled by C.R. Singhal, Bombay, 1950.

depiction of numerous deities on the coins of Kanishka I and Huvishka, he opined, underlines the liberal spirit of these two rulers in marked contrast to the aggressive sectarianism of V'ima Kadphises. (pp. 791-92).

In 1959 Major Allen H. Wood III earned the gratitude of the students of Kushāṇa numismatics by publishing *The Gold Coin-Types of the Great Kushāṇas* from Varanasi in the Numismatic Notes and Monographs Series (No. 9) of the Numismatic Society of India.

Among Indian scholars B.N. Puri is notable for his work on the Kushāṇas. In 1965 he brought out his monograph *India Under the Kushāṇas* from Bombay and in 1977 *Kuṣāṇa Bibliography*, also from Bombay. But his contribution to Kushāṇa numismatics is mainly confined to Appendix A of his former work. In this Appendix, titled 'A Note on Kushāṇa Numismatics', Puri described the types of Kushāṇa coins, their metallurgy, legends, divinities, weight standards, monograms, etc. (pp. 213-28).

The Early Kuṣāṇas (New Delhi, 1973) by Baldev Kumar is his Doctoral thesis. It makes an attempt at presenting the history of the rise and fall of the Kushāṇa power from Kujula Kadphises to Vāsudeva I and describes the coins of each ruler in the Chapter or Section devoted to him.

London Conference (1961) on the Date of Kanishka

The problem of the date of Kanishka I continued to attract the attention of scholars in the second half of the present century. As no decisive evidence to solve it was available (and is still not available) another International Conference was held to discuss the problem on April 20-21, 1961, in London under the auspices of the London School of Oriental and African Studies and the presidentship A.L. Basham. The papers submitted by scholars of various countries — Indian, Pakistani, Italian, French, German, Russian, British, etc. — were edited and published by Basham under the title *Papers on the Date of Kanishka* from Leiden in 1968. It contains altogether thirty papers of twenty-six scholars including

P.H.L. Eggermont, F.R. Allchin, H.W. Bailey, R.B. Whitehead, M. Bussagli, A.H. Dani, Ghirshman, Humbach, D.D. Kosambi, Von Lohuizen-de Leeuw, R.C. Majumdar, André Maricq, B.N. Mukherjee, A.K. Narain, Luciano Petech, E.G. Pulleyblank, John M. Rosenfield, D.C. Sircar, B. Stavisky, S.P. Tolstov, A.K. Warder, E. Zürcher, Friedrich Wilhelm, R. Göbl and P.L. Gupta. As pointed out by Basham in his Editorial Introduction, the London Conference also could not solve the problem of the date of Kanishka but most of its participants supported dates ranging from 78 A.D. to 144 A.D. except R.C. Majumdar who still advocated the theory of 248 A.D. The view that Kanishka ascended the throne in 144 A.D. was supported by Ghirshman, Dani, Göbl, P.L. Gupta and Pulleyblank. Earlier in his *Gandhāran Art in Pakistan*¹ Ingholt had also supported it while after the London Conference David Pingree favoured it on the basis of the *Yavana Jātaka*² and B.N. Puri³ without giving any new argument. In 1970 Göbl gave up the theory of 144 A.D. and on numismatic grounds proposed that Kanishka should be placed in c. 230 A.D. In the London Conference A.K. Narain proposed a new theory placing Kanishka in c. 103. A.D. while Rosenfield advocated a date between 110 and 115 A.D. But most other scholars supported the old view that Kanishka ascended the throne in 78 A.D. and the era initiated by him came to be known as the Śaka era. In his review-article on the monograph edited by Basham, S.R. Goyal has recapitulated all the additional arguments in favour of the 78 A.D. theory.⁴

In the London Conference of 1961 F.R. Allchin examined the results of Marshall's discoveries in Taxila in relation to the coin finds at Bhir Mound, Sirkap, Sirsukh and Dharmarājika in order to establish the correlation between the coin-sequence and the building periods. In his study of the archaeological discoveries at Begram R. Ghirshman also

1. New York, 1951, 1957.

2. *BSOAS*, 1970, p. 646.

3. Puri, *India Under the Kushānas*, Bombay, 1965, pp. 38-50.

4. Goyal, S.R., *Itihāsa Samīkshā*, II, Year 2, Jaipur, 1972, pp. 143-80.

proposed the date of Kanishka on the basis of the last remnants of the Kushāṇa rule at Begram, that is, the coins bearing the name of Vāsudeva.¹

Dushanbe, New Delhi and Allahabad Conferences

In the London Conference R. Göbl and D.W. MacDowall emphasised upon the Roman borrowings in the Kushāṇa coinage, with regard to either the coin-types or the metrological standard. In the same Conference B. Stavisky and S.P. Tolstov initiated the debate on the study of Kushāṇa Central Asia.² It was taken up as the main theme of the International Conferences held at Dushanbe³ (Tajikistan) in 1968 and at New Delhi in 1969. A number of outstanding specialists from India and other Asian countries took part in the Dushanbe Conference together with numerous European Orientalists.⁴ Indian scholars including D.C. Sircar, G.R. Sharma, B.B. Lal, B.N. Mukherjee, B.K. Thapar and Lokesh Chandra presented their papers. All the material of the Conference was published in a large two-volume work titled *Central Asia in the Kushan Period* published from Moscow (1974-75).

Many of the papers submitted in the Dushanbe Conference were on Kushāṇa numismatics or on topics related with this subject. Among them are included MacDowall's 'Implications for Kushan Chronology of the Numismatic Context of the Nameless King' (*Central Asia in the Kushan Period*, Vol. I, pp. 245-64) and Simonetta's 'The Indo-Parthian Coinage and its Significance in the Chronology of the Kushans.' (*ibid.*, pp. 283-88).

An International Conference on Central Asia was also held in New Delhi in 1969 in which a number of Indian scholars participated. Further, in 1982 an Indo-Soviet symposium on archaeology and ancient history of India and Central Asia was held at Allahabad in which Soviet scholars

1. Quoted by Bhaskar Chatterjee, in *JNSI*, XLIX, p. 165.

2. See their respective papers in Basham, *op. cit.*

3. *Kushāṇa Studies in U.S.S.R.*, Soviet Indology Series No. 3, Calcutta, 1970.

4. For a brief account of the Dushanbe Conference see my *Recent Historiography of Ancient India*, Jodhpur, 1997, pp. 188 ff.

dealt with their latest discoveries and researches on Central Asia specially of the Kushāṇa age. This interaction gave a great impetus to the study of the Kushāṇa numismatics also.

B.N. Mukherjee

Among Indian scholars who have made major contributions to the history and numismatics of the Kushāṇa age, the name of B.N. Mukherjee requires special mention. His major works on the Kushāṇa age include *The Kushāṇa Genealogy — Studies in Kushāṇa Genealogy and Chronology* (Calcutta, 1967), *Kanishka I and the Deccan—The Kushāṇas and the Deccan*, Pt. I (Calcutta, 1968), *Nanā on Lion—A Study of Kushāṇa Numismatic Art* (Calcutta, 1969), *The Economic Factors in Kushāṇa History* (Calcutta, 1970), *The Disintegration of the Kushāṇa Empire* (Varanasi, 1976), *Kushāṇa Coins of the Land of Five Rivers* (Calcutta, 1979), *Kushāṇa Silver Coinage* (Calcutta, 1982), and *The Rise and Fall of the Kushāṇa Empire* (Calcutta, 1988). His *The Pāradas — Their Coinage and History* (Calcutta, 1972) is also relevant for Kushāṇa history. Some years ago he wrote a 'Commentary' on the *Political History of Ancient India* of H.C. Raychaudhuri (7th edn., 1970) in which he has tried to summarise the results of the work done by other scholars on ancient Indian political history, including the history of the Kushāṇas, after the demise of Raychaudhuri and before the 'Commentary' was written in 1996. (Delhi, 1997). In it he has written a detailed Note on the Kushāṇas (pp. 715-34) in which Kushāṇa coins are also discussed.

B.N. Mukherjee is one of those historians who have remarkable mastery over original sources specially coins, are thoroughly conversant with non-Indian sources, go deep into the problem they discuss and give profuse references. His works are usually in the form of small monographs but they are usually indispensable for further researches on Kushāṇa history.

Nanā on Lion - A Study of Kushāṇa Numismatic Art (1969) was the first monograph of Mukherjee on Kushāṇa numismatics. As indicated by the title, it is a study of the well-known reverse device of the

Babylonian (Sumerian) goddess Nanā seated on lion figuring on some Kushāṇa coins. The work comprises of five chapters and six appendices. Ch. I emphasises the popularity of goddess Nanā, identified with the ancient Akkadian-Assyrian deity Ishtar and the Persian goddess Anāhita, in the territories later included in the Kushāṇa empire or in certain localities which served as important centres of Roman trade with the East in which the Kushāṇas also participated and points out the importance of the study of the device in question. In Chapter II, captioned 'Devices', which is the longest one and forms the core of the book, Mukherjee traces the origin and development of the coin-type, focussing attention on the intermingling of the concepts, functions and iconic forms of such diverse divinities as Nanā, Ishtar, Anāhita, Artemis, Tyche, Demeter and Ambā in the centuries before and after Christ. He argues that these syncretistic tendencies played an important part in the formation of the concept and iconography of Durgā, as well as Mahishāsūramardīnī. The latter probably reflects the concept of Ishtar (Nanā) as a war-goddess. Chapter III, titled 'Style and Technique', is divided into two sections. Section A deals with the stylistic affinities of the representation of Nanā to some products of the Gandhāra school which support the dating of Kanishka's Nanā about the 3rd century A.D. while Section B describes the technique of manufacturing Kushāṇa coins. Ch. IV, styled 'Rulers, Artists and Environment', points out how from the interaction with foreign peoples the people of the Indian sub-continent, gained momentum under the Kushāṇas who imbibed a liberal religious attitude. The last Chapter is in the form of 'Epilogue', and sums up the results of the preceding discussion pointing out the contribution of Nanā-on-Lion, a foreign goddess, to the development of the iconographic and religious concepts of Devī. But as pointed out by D.C. Sircar, the name of the goddess (Nanā) is used in the *Rgveda* (IX. 112-3) in the sense of 'mother', so it was easy to take her to be the same as the Indian mother-goddess.¹

1. *JAIH*, IV, p. 345.

Appendix I of the book, titled 'The Prototype of an Obverse Device of Kushāṇa Coinage', suggests that the Kushāṇa motif of 'king standing to his right and offering something on an altar' was copied by Kadphises II from the issues of the Parthian king Gotarzes II (c. 38-51 A.D.). The well-known gold piece in the British Museum bearing the city-deity of Pushkalāvati and a legend, which is deciphered as *Am̐pae* (Ambā) (other scholars read it as *ambī*) are discussed in Appendix II. It is suggested that the iconographic features of Ambā may have been influenced by the Yakshinī figuring on certain coins of Pantaleon and Agathocles. The interest of the Kushāṇas in Indo-Roman trade is also brought out. In Appendix III it is suggested that V'ima Kadphises' conquest of Shen-tu or the lower Indus region was largely inspired by the prospects of economic gain accruing from thriving Indo-Roman commerce. In Appendix IV it is suggested that the four-armed goddess on a silver bowl in the Oxus Treasure should be identified with Nanā-Anāhita-Ishtar, while the following Appendix is claimed by a brief discussion on an intaglio seal in a private collection at Peshawar. In the closing Appendix, Mukherjee suggests that 'the hermaphrodite figure on a silver plate' in the Istanbul Museum is probably influenced by the two concepts associated with Śiva viz. Ardhanārīśvara and Paśupati.

In his *Kushāṇa Coins of the Land of Five Rivers* (Calcutta, 1978) B.N. Mukherjee deals chiefly with the Kushāṇa coins found in the lands of the five rivers and makes good use of the numismatic evidence in deducing some valuable conclusions on several aspects of the Kushāṇa culture. The monograph contains three sections and seven appendices. Section I deals with the attribution and impact of the coins, Section II treats art of coinage and Section III contains a catalogue of the coin-types. Of the seven appendices first four are devoted to the problems of the coins attributed to Vasu, Bāzesko, Kanishka IV(?) and Vāsudeva IV(?). Appendix V discusses the numismatic evidence on the theories about division of the Kushāṇa empire, appendix VI considers the technical problems of gold content of the Kushāṇa coins now preserved in the Indian

Museum and the British Museum and the last appendix is a sort of addendum to the section dealing with the art of coinage.

According to Mukherjee, coins struck as local types by Kujula Kadphises and Soter Megas (if he was a Kushāṇa ruler) in the territory concerned, may be considered as forming the early Kushāṇa coinage of the Punjab. Kujula obviously followed the numismatic tradition of the Indo-Parthians whom he supplanted in the region. In the coin-types of Soter Megas a conscious attempt of reformation is clearly noted, while local traits of the regionally struck coins were lost with the reformation of coinage under V'ima Kadphises. The imperial character of the Kushāṇa coins, however, became diffused in the days of Kanishka I and Vāsudeva II, and their gold coins may be attributed to the different parts of their empire on the strength of their types, provenances and other features. At the end of his survey Mukherjee has discussed to what extent the tribal people of Punjab, who succeeded the Kushāṇas in the region, imitated the Kushāṇa coin-types.

In section II of his work Mukherjee has examined a large number of coins from the point of view of technique, style and iconography and attempted to correlate the findings with the contemporary glyptic art. So far as iconographical study of the coin devices is concerned, it offers a very comprehensive discussion.

In the appendix titled 'Foundations of Kushāṇa Numismatic Art' coins of the early non-Indian rulers of the north-western parts of the Indian sub-continent and its borderlands have been examined to find out as to 'how far they reflect the trends in contemporary art'. It is perhaps the best part of this monograph.

In this work Mukherjee has also tried to show that the term 'Later Kushāṇa' is misleading. Numismatic evidence indicates that in the North-West, especially in the land of the five rivers, several ruling families or groups reigned for some time immediately after the downfall of the Imperial Kushāṇas. Only one of these groups bore the name *Kusha*. Even if this group was ethnically related to the Kushāṇas, it might not have

any direct connection with the Imperial Kushāṇa family. Moreover, the other relevant groups (like Shāka, Shīlada, Mahi, and Gaḍakhra) had certainly no connection with the Imperial Kushāṇas. They occupied small sections of the North-West after the fall of the Kushāṇa empire. So, in the opinion of Mukherjee, they should be included among the successors of the Kushāṇa empire. One or more of them using the Kushāṇa titles of *Devaputra* and *Shaonano Shao* could have been referred to in the Allahabad inscription of Samudragupta as *Daivaputra Shāhi Shāhānushāhi*.

Kushāṇa Silver Coinage (Calcutta, 1982) of Mukherjee is a small monograph of 92 pages. As is well-known, the silver coins attributable to the Kushāṇas are extremely rare and very often their attribution and genuineness are suspect. Mukherjee has culled together all the information on such coins and has arranged it in a systematic manner. He has come to the conclusion that the Kushāṇas did struck silver coins. In fact, the earliest series of coins of the independent Kushāṇa kingdom consisted of silver issues. The issuer of this series was Miaoś who ruled before Kujula Kadphises. He struck silver coins on Attic weight standard. Mukherjee recognises as many as two groups of his silver coins falling into five sub-groups in all. After him Kujula Kadphises issued at least one variety of obols which were minted in Ta-hsia (Eastern Bactria, to the south of the Oxus river or in the Yüech-chi territory to the north of that river or in the Western Bactria, around Bactra). Kujula ruled over all these regions to the north or north-west of Hindukush.

Mukherjee attributes three silver coins found from Taxila (Sirkap) excavations to V'ima Kadphises. According to him, these drachms were 'meant for circulation in the lower Indus country'.

V'ima Kadphises reformed the existing currency system and put it on a sound footing. After him Kanishka I, Huvishka and Vāsudeva I issued silver coins, though in a very small number. Mukherjee convincingly shows that their silver coins are genuine pieces, not forgeries. The reason for the paucity of the silver coinage of the Kushāṇas, Mukherjee argues,

could not have been the paucity of silver, for the white metal was abundantly available in India during the Kushāṇa period. He feels that this phenomenon may be explained through the operation of Gresham's Law according to which bad money ousts good money from the market. The silver currency before the Kushāṇas in the North-West is said to have become debased and, therefore, to issue silver coinage in that area was not useful and profitable. The silver currency of the Kushāṇas was issued from the mints located in and for the people of the lower Indus country because the people of this region were probably not yet used to the debasement of silver coinage already witnessed in the North-West.

The lower Indus country was conquered by V'ima Kadphises. It is referred to as Shen-tu and also as T'ien-chu in certain Chinese texts. Shen-tu or T'ien-chu of the Chinese texts seems to be identical with Hidush of the Persepolis and Naqsh-i-Rustam records and Hiduv of the Hamadan inscriptions of Darius who ruled from c. 522 to 486 B.C. (Sircar, *Select Inscriptions*, pp. 7, 8 and 10). Sircar equates it with 'India' that is the Valley of the Indus. But it is rather intriguing that so far not a single silver coin mentioned above has come from the lower Indus valley, the region for which, according to Mukherjee, they were minted.

Mukherjee mentions the Mathura inscription of the year 28 of the time of Huvishka, in which an endowment is said to have been created out of the thousand and one hundred silver coins called *purāṇas*. Mukherjee maintains that these *purāṇas* should be taken as non-Kushāṇa silver pieces minted officially or unofficially in the Kushāṇa period itself. Here he accepts the possibility of silver coins being minted unofficially in the Kushāṇa period itself and thus ignores the operation of the Gresham's Law which he uses to explain the meagreness of the Kushāṇa silver coins. The fact that the said endowment was created from 1,100 silver coins also means that these coins were acceptable to the guilds of traders as current currency. This fact again negates Gresham's Law.¹

1. According to R.S. Sharma, some important source of silver suddenly dried up in the Kushāṇa age (*JNSI*, XXXI, i, pp. 2 ff.). *Contra* O.P. Singh (*Economic Gleanings from Early Indian Coins*, Varanasi, 1985, Ch. VII) who has discussed this problem in detail.

The Pāradas : Their Coinage and History by B.N. Mukherjee (Calcutta, 1972) is a pioneer study of various problems connected with the history and coinage of the Pāradas. It comprises three chapters and two appendices. Its Chapter I titled 'Coins' brings to light the numismatic material on the Pāradas. The coins described in this Chapter are catalogued in Chapter II. The coins of the Pāradas fall into three groups. Coins of Class I were struck in copper and are bi-scriptal, bearing inscriptions in Kharoshthī and Greek scripts. Struck to the standard of Indo-Greek tetradrachm, these coins were minted in the first century A.D. They appear to have been influenced by the coins of the Kushāna chief Miaos and the joint-issues of Hermaios and Kujula Kadphises. Species of Class II are of silver. They were struck to the standard of Indo-Greek hemidrachm and bear legends in Kharoshthī only and may, on palaeographic grounds, be attributed to some date in the 3rd-5th centuries A.D. Class III, also of silver, has legends only in Brāhmī and was probably minted sometime after Class II. These coins furnish the names of some otherwise unknown Pārada chiefs which have been read as Pudena, Pudhana or Pudhena, son of Bagapharna, Hvaramira (or Varamira or Haramira), son of Yasama (or Mira), Ajuna, son of Hilamara or Hilajara, and Palasara. Some of these names are obviously of non-Indian origin.

Literary and epigraphical references to the Pāradas in Indian and foreign sources are critically studied in Chapter III titled 'The People'. These references suggest that the Pāradas were originally a branch of the Median people and they, or a section of them, ultimately migrated to the Indian sub-continent where they, like other ancient immigrant foreign tribes, merged in the national main-stream leaving no trace whatsoever of their identity.

In Appendix I, titled 'Mint of Miaos', Mukherjee shows that the coins of the earliest known Kushāna chief Miaos, perhaps struck at a mint to the north of the Oxus, were also current to the south of the Hindukush and exercised influence on the earliest issues of the Pāradas.

In the following Appendix it has been suggested that the coins bearing the names of Hermaeus and Kujula Kadphises were not their joint-issues but were struck by local chiefs and/or invading nomads in certain areas to the south of the Hindukush long after Hermaeus. And as the earliest coins of the Pāradas were influenced by the aforesaid coins, the former cannot be dated earlier than the reigns of Miaos and Kujula.

Here some other important observations of Mukherjee on Kushāṇa coins contained in his *The Rise and Fall of the Kushāṇa Empire* (Calcutta, 1988) may be noted. This work of Mukherjee is the most comprehensive treatment of the Kushāṇas. In it he liberally utilises the evidence of the Kushāṇa coins in the reconstruction of their history. Among his suggestions based on the numismatic evidence are included the following:

The fact that the coin-legends of the Kushāṇas from a date in the reign of Kanishka I onwards were written almost exclusively in a language, to which W.B. Henning has given the name Bactrian (p. 514, n. 408), shows that for the Kushāṇas it was the most important language of their empire. Written in the Greek script, it is found used in several documents discovered in Pakistan, Afghanistan and Central Asia.

The first known independent Kouei Shüang or Kushāṇa ruler was Miaos who struck silver tetradrachms and obols in about the second half of the first century B.C. He not only founded an independent kingdom in Ta-hsia but also probably extended his rule to the north of Oxus. (pp. 24 ff.).

‘The king sacrificing at an altar’ device, which was introduced in Kushāṇa coinage by V’ima, was based on the identical device found on the coins of the Imperial Parthian ruler Gotarzes II (38-51 A.D.). (pp. 335). Later on it was copied by the Imperial Guptas.

Endowments in money, as indicated by epigraphic data, is generally taken to suggest that money economy was in a flourishing state. This, however, does not mean that the system of barter was not in practice. It has also to be noted, as indicated by a Mathura epigraph of the year 28, that silver coins struck by private agencies were allowed to be circulated

in the Kushāṇa empire. In fact, in the Indian sub-continent, the Kushāṇas themselves struck silver coins only in the lower Indus area. Their gold (dīnāra) and copper (dramma?) coins minted in the days of V'ima, Kanishka (I), Huvishka and Vāsudeva I were meant for circulation throughout the empire. Typologically these cannot be attributed, unlike pre-Kushāṇa coins in India, to different areas. From this point of view, the Kushāṇas were responsible for issuing the first imperial coinage of India.

Gritli von Mitterwallner

More than a decade ago, in 1984 Gritli von Mitterwallner, Professor of Indology in the Ludwig-Maximilian University, Munich, delivered Growse Memorial Lectures at the Government Museum, Mathura, which were published from Mathura in 1986 in the form of a monograph titled *Kuṣāṇa Coins and Kuṣāṇa Sculptures from Mathurā*. The monograph is divided into two Parts of which Part One, discussed here, deals with select coins and chronology of the Kushāṇas. In Section A of this Part, coins of the early Kushāṇas from Kujula to Vāsudeva I are described (pp. 1-10). Section B deals with the problem of the date of Kanishka I and the chronology of the early Kushāṇas (pp. 11-27) and Section C discusses the coins of the 'Later Kushāṇas' (Kanishka II, Vāsishka, Kanishka III, Vāsudeva III, Shāka, Shkīnatha, and Gaḍahra/Gaḍakhra and of the Hun king Kirada/Kidara as well as silver coins with the Brāhmī legends Shā Piroysa and Alkhāna). The Part One of the monograph concludes with an Appendix "Two Hunnish peoples who invaded the Indian Subcontinent : Sita- or Śveta-Huṇa and Hala-Hūṇa (Hāra-Hūṇa) or Alkhāna, Alxon."

Mitterwallner supports the view of David W. MacDowall that Kujula Kadphises was prone to adopt coin-types and denomination current in the territories conquered by him because he had no coin tradition of his own. According to him whether he issued 'Heraios' (Miaos) and Soter Megas coins is an issue which cannot be decided as yet. (p. 2).

Under V'ima, the son and successor of Kujula, gold as metal for

coins was introduced. The practice was continued by his successors. He issued copper coins also on which the figure of the standing king sacrificing at a small altar appears. Mitterwallner agrees with B.N. Mukherjee in believing that the Kushāṇas had adopted this motif from the coins of the Parthian king Gotarzes. The reverse device on the coins of V'ima is restricted to Śiva, with or without bull, and his emblem *trīsūla*.

On early gold coinage of Kanishka I, son and successor of V'ima, the Greek obverse legend of his predecessor is repeated but on his somewhat later gold coins it is replaced by Bactrian legend with Iranian titulature and dynastic designation for Kushāṇa. The lengthy Kharoshthī legends found on the coins of V'ima are also replaced by short Bactrian legends which refer not to the king but to the deity depicted on the reverse some of whom are clearly shown as the deities of investiture. Some of his coins also depict Śākyamuni Buddha and Maitreya, the future Buddha.

The gold coinage of Huvishka, the son and successor of Kanishka I, constitutes the most numerous of all coinages. It comprises of about 30 variants of the representation of the king on the obverse and the largest number of deities ever depicted on the Kushāṇa coins. They include some Classical Western, Indian and many Iranian divinities. Some of these coins show high quality workmanship while others are of poor quality.

The gold coinage of Vāsudeva I shows abrupt decline in quantity and a sharp reduction in the number of deities. The majority of his gold coins have the device of Śiva with or without his *vāhana* bull; only a few of his coins have other deities on the reverse. One of his coins discovered by Joe E. Cribb depicts four handed Vāsudeva (Kṛshṇa) with *gadā* (mace), *śaṅkha* (conch-shell), *chakra* (wheel) and probably *vajra* or bag of riches. The reverse legend clearly gives him the name Bāzodeo.

In the next Section of Part One Mitterwallner discusses the chronology of the Kushāṇas. After a long discussion he comes to the conclusion that Kanishka I ascended the throne in or shortly after 143 A.D., most likely in 144 A.D. Under his successors people continued counting in the years of his reign. His reckoning thus turned into an era.

Mitterwallner then discusses the coins and chronology of the 'Later Kushāṇas'. First of all he discusses the problem whether a group of 'Later Kushāṇa' kings did exist at all or whether all coins and inscriptions which refer to members of the Kushāṇa dynasty are to be ascribed to one and same group of Kushāṇa kings. It also involves the question to which era the inscriptions of Kanishka II, Vāsishka and Kanishka III refer. Mitterwallner makes Kanishka of the Ara record of the year 41 Kanishka III. He was succeeded in turn by Vāsudeva III, Shāka, Shkīṇatha and Gaḍahra or Gaḍakhra who was forced to become a subordinate to Kirada or Kidara and Shā Piro, who according to Mitterwallner were Hun monarchs. Gaḍahra then turned to the powerful Gupta emperor Samudragupta for succour and entered a contract with him to safeguard protection from this side.¹ It is evident from the gold coins of Gaḍahra, on which he is called *Gaḍakhra* in the Brāhmī legend engraved in the right obverse field, whereas the personal name *Samudra* of the Gupta emperor is placed under the left arm of Gaḍahra. On these coins the name Samudra of the Gupta king obviously substitutes the name *Kirada* and *Piroysa* of the Hūṇas found on Gaḍahra's earlier coins.

Bhaskar Chattopadhyay

An Indian scholar who has devoted himself mainly to the history and coinage of the Kushāṇas is Bhaskar Chattopadhyay. So far he has published two monographs on Kushāṇa history viz. *The Age of the Kushāṇas — A Numismatic Study* (Calcutta, 1967) and *Kushāṇa State and Indian Society — A Study in Post-Mauryan Polity and Society* (Calcutta, 1975). His third work *Coins and Icons — A Study of Myths and Symbols in Indian Numismatic Art* (Calcutta, 1977) also touches some aspects of the iconography of the Kushāṇa coins.

The first work of Chattopadhyay is substantially the thesis which

1. Cunningham (*Later Indo-Scythians*, pp. 115, 184) and Martin ('Coins of Kidāra and the Little Kushāṇas' in *JRASB (L)*, Vol. III, NS, No. XLVII, Calcutta, 1937, pp. 40 ff.) regarded Kidāra (Ki-to-lo of the Chinese historians) as a king of the Great Kushāns who founded the kingdom of the Little Kushāns in Gandhāra.

earned for him the degree of Doctor of Philosophy (D. Phil.) of the University of Calcutta. As is apparent from the title it is essentially a numismatic study, though Chattopadhyay has frequently utilised literary and archaeological sources as well.

After giving a broad outline of the history of the Kushāṇas in the Introduction, Chattopadhyay has divided the subject into ten chapters, the titles of which indicate their scope :

Chapter I : The Yüeh-chi and the Rise of the Kushāṇas; Chapter II: Early Kushāṇa Coinage: Coinages of Kadphises I, Kadphises II and Soter Megas; Chapter III: Development of Kushāṇa Coinage : Coinages of Kanishka, Huvishka and Vāsudeva; Chapter IV : Last Phase of Kushāṇa Coinage: Section I — Coinages of Vāsudeva I's Successors: Kanishka III, Vāsudeva II, the Shākas, the Shīladas and the Gaḍaharas; Section II — Kushano- Sassanian Coinage, Kidāra-Kushāṇa Coinage and Puri-Kushāṇa Coinage; Chapter V: Representation of Kings on Kushāṇa Coins; Chapter VI: Deities on Kushāṇa Coinage; Chapter VII: Metrology of the Kushāṇa Coinage; Chapter VIII: Legends and Symbols on Kushāṇa Coinage; Chapter IX: Provenance of the Kushāṇa Coins ; and Chapter X: Indian Heritage of Foreign Numismatic Traditions.

With the exception of the first chapter which is devoted to a historical study of the connection between the Yüeh-chi migrations as recorded in the Chinese literature and rise of the Kushāṇas, rest of the work deals almost exclusively with numismatic material and their interpretation. Chattopadhyay claims, and rightly so, that his object has been “to compile and present in a systematic manner the varied evidences of the Kushāṇa coinage in regard to types, scripts, symbols, metrology, iconography and mythology, etc. and to draw conclusions from the data thus collected, having a bearing on socio-economic life, commercial and cultural relations between the East and the West, the personal religion of the Kushāṇa monarchs and their political concepts tinged with religious ideas, the various phases of the evolution of the Kushāṇa currency as well as its deterioration, reflecting the different stages of their rise to

power followed by political decline.' ' (p. xiii). He has also tried to indicate how the Kushāṇa coinage was influenced by the traditions handed down by the Scythians and the Parthians, their immediate predecessors whose numismatic impulses had for their source the coinage of their predecessors, the Indo-Greeks. The Kushāṇas not only borrowed some of the typological motifs and features from the earlier currencies, but they also made remarkable original contributions enriching their own coinage during the period of growth. They left an impression on Indian numismatic development which continued upto the end of the Hindu period. (*ibid.*, pp. xiii-xiv).

The importance of the monograph of Chattopadhyay lies in the fact that it makes a comprehensive and up-to-date study of the Kushāṇas with almost an exclusive emphasis on numismatic materials. The importance of the coins of the Kushāṇas for the study of their chronology as well as political and cultural history is universally recognised. But they are generally utilised as one of the sources, rather than as an independent subject of study which Chattopadhyay has successfully done. The evidence which Chattopadhyay has been able to gather from numismatic data has raised many questions such as those relating to the probability of there being more than one Kujula Kadphises, Kanishka, Huvishka and Vāsudeva, the identification of Soter Megas with V'ima Kadphises, and the relative chronological position of the Kadphises kings vis-a-vis the Kanishka group. According to Chattopadhyay, an analysis of the data furnished by the Kushāṇa coinage suggests reasonable solution of these and other connected problems. He claims to have made a special study of the deities as represented on these coins, tracing their mythological origins and affiliations. On the basis of his study of the representation of kings on Kushāṇa coins he has offered some suggestions on the ideas of kingship held by the Kushāṇa rulers. He also claims that his examination of the scripts used in the Kushāṇa coin-legends, is far more intensive than hitherto attempted. In the chapter on the provenance of the Kushāṇa coins, he has not only discussed the importance of find-

spots of coins and coin hoards in determining the limits of the Kushāṇa empire but has also considered this data to solve the problems of Kushāṇa chronology, and for dating of the import of Roman coins in India.

The varied reverse devices occurring on the Kushāṇa coinage representing Greek, Iranian and Brāhmanical divinities including Śākyamuni Buddha have been critically examined by various numismatists. The bearings of those coin-devices on the iconographic and mythological development has been assessed by Chattopadhyay in detail in his *Coins and Icons — A Study of Myths and Symbols in Indian Numismatic Art* (Calcutta, 1977). This work is a comprehensive study of the symbols and devices represented on early Indian coinage, including the Kushāṇa coins.

Chapter III of this work contains a study of Greek gods and goddesses represented on Indian coins. The Hellenistic religious art made its advent in India with the appearance of the Greeks. The Hellenistic tradition, faithfully continued by the Scytho-Parthians and Kushāṇas, cast an influence upon Indian art and iconography. Chattopadhyay has sought to prove that there was a striking resemblance between Graeco-Roman mythology and Vedic-Epic-Paurāṇika mythology.

In Chapter IV Chattopadhyay has made a fresh study of the Zoroastrian deities used as varied reverse devices on the Kushāṇa coinage. According to him, while some of the Iranian deities stand for some ethical concepts, others represent natural phenomena and attributes of human nature. The parallels may be drawn from the Hindu mythology.

Chapter V aims at the study of the development of some Brāhmanical mythological concepts manifested through iconographic media. A section of this chapter deals with the Buddha in which the controversy regarding the earliest human representation of Śākyamuni has been discussed.

Bhaskar Chattopadhyay has written several useful papers on the coinage of the Kushāṇas. Here mention may specially be made of his paper titled 'Methodological Approaches to the Study of Kushāṇa Coins'

published in *JNSI* (XLIX, pp. 164-69). It gives a brief but systematic exposition of the varying approaches and attitudes of various scholars to the study of the Kushāṇa coins since the beginning of Kushāṇa studies.

Satya Shrava

The Kushāṇa Numismatics by Satya Shrava was published in 1985 from New Delhi. Satya Shrava joined the Archaeological Survey of India in October 1947 where, as he informs us, he “‘had to undertake initially a study of gold coins, most of which belonged to Kushāṇas.’” (p. iv). It made it possible for him ‘to study the coin cabinets of various museums of the country’ (*ibid.*) and ‘to equip himself ultimately for writing on the Kushāṇa coinage in the form of the present book’. As his work is the result of about four decades’ hard labour of a person who has had the rare opportunity to consult the coin cabinets of various museums of the country (an opportunity not easily available to others) it raises high expectations which unfortunately are not fulfilled. The work is a large-sized, bulky and highly priced volume and contains fourteen chapters, several appendices and charts and also photographs of 333 coins, but there is no depth in the treatment of the subject. Starting with Introduction its different chapters deal with the usual topics—coins of various individual kings, the deities depicted on them, legends on the Kushāṇa coins, languages used, metrology, monograms, Kushāṇa silver coins, etc. But the author hardly makes any new logical suggestion anywhere and his work fails to make any worthwhile contribution to the progress of Kushāṇa numismatics.

P.L. Gupta

P.L. Gupta is regarded as one of the greatest living numismatists of India. In his long career spanning several decades he has written a number of research papers on Kushāṇa numismatics and history. Recently he collected ten of his papers on the Kushāṇas and alongwith two papers (papers 9 and 10) of a certain Sarojini Kulashreshtha (a Hindi poetess who is also interested in the history of Mathurā) published them under

the title *Kuṣāṇa Coins and History* (New Delhi, 1994). These papers in their totality throw light on the coins and history of the Kushāṇas from their rise till their end in the mid-fourth century A.D. from the viewpoint of P.L. Gupta. Gupta has expressed the hope that these papers would stimulate re-thinking among historians and provide a new frame to rewrite the history of the Kushāṇas. However, his statement, made in the Introduction, that the importance of the numismatic materials for Kushāṇa history is not adequately realised and they seldom find references in the works on their history is obviously inaccurate as the chapters on Kushāṇa history and coinage in the *Cambridge History in India*, I, (1922), *A Comprehensive History of India*, Vol. II (Calcutta, 1957), and the works of numerous scholars such as B.N. Puri, B.N. Mukherjee, Bhaskar Chattopadhyay and many others prove.

P.L. Gupta's perception of Kushāṇa history and coinage is based on his belief that Kanishka I's accession took place in the fifth decade of the second century A.D., most likely in 144 A.D. (paper 7). Among other major hypotheses which he seeks to establish are included the following:

The fragmentary inscription discovered at Reh in the district of Fatehpur, Uttar Pradesh, and attributed to the Indo-Greek king Menander by G.R. Sharma, belongs to V'ima Kadphises. Gupta argues that all the epithets used in the inscription for the king, whose name is lost, were never used for that Indo-Greek king. They all apply, as a group, only to the Kushāṇa ruler V'ima Kadphises; the inscription, therefore, relates to his period and testifies his presence in this region. (p. 160). Gupta seeks to strengthen this suggestion by identifying the Yavanarāja of the Hathigumpha inscription of Khāravela with this Kushāṇa ruler. (p. 161).

The gap between V'ima Kadphises and Kanishka is reduced, P.L. Gupta believes, partly by the discovery of a copper coin, found at Sonkh in Mathurā district. The legend on the coin discloses that Kanishka was the son of hitherto unknown king Huvishka (Huvishka I). (paper 5, pp. 65-69). The existence of a Huvishka before Kanishka is substantiated by isolating certain gold and copper coins that are usually believed to be the

coins of Huvishka, the successor of Kanishka. The existence of Huvishka, the grand-father of the king of the same name, is mentioned in a Māt inscription which supports the numismatic evidence, Gupta argues.

P.L. Gupta postulates the existence of a Huvishka III also. According to him, the coins of Huvishka, the successor of Kanishka (other than those referred to above as the coins of Huvishka I, the father of Kanishka), belong to two successive rulers of the same name, Huvishka II and III. (paper 12, pp. 161-68).

On the question of the extent of the Kushāṇa kingdom in the east, P.L. Gupta maintains that it never extended beyond Varanasi in the east. (papers 1,2,3,6). The coins and the other numismatic objects known in those areas, are no evidence of the Kushāṇa rule there. They are found in those areas only because they had reached there through trade; and that too, not as any currency but merely as the commodities of common need during the time of the Guptas, who had hardly any copper coinage which the people needed to meet their petty needs.

The Kushāṇas (*Daivaputra Shāhi Shāhānushāhi*) existed upto the time of Samudragupta alongwith another tribe or dynasty called Shāka (*Shaka-Muruṇḍa*). This is obvious from a line in the Allahabad Pillar Inscription. P.L. Gupta claims that a supporting evidence has now been found in a certain coin-hoard that includes Kushāṇa coins alongwith coins of Samudragupta and Kācha. (paper 8).

P.L. Gupta suggests that the Kidārites (Kidāras) ousted some local rulers, whom he calls Tribal Kushāṇas from the territories that the latter had snatched from the Kushāṇas. This might have happened in or about the time of the Gupta ruler Chandragupta II. Later, Skandagupta led an army expedition against them. (paper 8, pp. 122-24). Most likely these Kidārites (Kidāras) are referred to as Mlechchhas in his Junagarh inscription.

In four papers, taken together (papers 8-11), Gupta and Sarojini Kulashreshtha have made an attempt to show that the Kushāṇas existed for about a century more after Vāsudeva had lost a part of his kingdom

to the Sassanids. But they did not rule the whole kingdom that was now left, during this entire period of 100 years. At some point of time they also lost some western parts of their empire; only the Yamuno-Gangetic region was left with them till the end. They were extinguished from there by the Gupta ruler Chandragupta II in circa 370 A.D. P.L. Gupta summarily dismisses the hitherto generally accepted theories regarding the decline of the Kuṣāṇas in this region. He says: "The decline of the Kuṣāṇas in the Yamuno-Gangetic region is vaguely suggested at the hands of the Yaudheyas or the Nāgas. But..... no Yaudheya coin has so far been found here. Nāga coins are known only a few scattered here and there (*sic*); they afford no evidence of their existence in the region." In the perception of P.L. Gupta "by the time of Vāsudeva, the eastern part of the Kuṣāṇa empire had considerably shrunk; but they continued their hold in Mathurā and its surroundings from the time of Vāsudeva till the rise of the Guptas. They were never wiped out at any time earlier." (pp. 177-78).

The difficulty with P.L. Gupta seems to be that when he reconstructs history he is always eager to theorise and offer some 'brand new' suggestion. He is undoubtedly a great numismatist, a real 'master' of this branch of knowledge, but when he reconstructs history he lets his imagination run wild and in his eagerness to suggest something which no one else had suggested earlier he overlooks other evidences which go against his theory and tries to prove a doubtful point by another doubtful point. One can only feel exasperated when Gupta rejects the clear testimony of the Gaḍahara coin bearing the name Samudra and having close resemblance with the Standard type of Samudragupta and deduces far-reaching conclusions on the basis of untraceable coins of the hoards which came to light in the early decades of the present century. The summary dismissal of the emergence of the Nāgas by him in the period immediately preceding the rise of Samudragupta so well attested by the Purāṇas, coins of the kings having *nāga* ending names, inscriptions of the Vākāṭakas and Guptas and various other evidences, in favour of his

own interpretation of the few coins of the Later Kushāṇa kings is another example of this psychological weakness of P.L. Gupta. The same psychology has led him to believe that the Kushāṇas “existed in the Mathura region as a friendly neighbour till the time of Samudragupta” (p. 182) and “were extinguished from there by Gupta ruler Chandragupta II in *circa* 370 A.D.” (p.9).

Recently P.L. Gupta has written a research article on the silver coins of the Kushāṇas. (‘Kushāṇa Silver Coins’, in *Numismatic Panorama: Essays in Honour of Late Sh. S.M. Shukla*, eds. K.K. Maheshwari and Biswajeet Rath, New Delhi, 1996, pp. 79-88). In it he seeks to put all information about Kushāṇa silver coins in a condensed form, adding his own information and comments and to bring to the notice of scholars more such coins that were not known to B.N. Mukherjee (*supra*). According to him, in all 17 silver coins of the Kushāṇas are known and finds of most of them were confined to north Afghanistan and the Indus region. It suggests that these were regional issues and were issued in a very small quantity, probably on some particular occasion and for some specific purpose. Possibly they are commemoratives and were not meant for general currency.

S.R. Goyal

From the above study it is obvious that the coins of the Kushāṇas have been examined intensively by numerous scholars, but no one has apparently made a compact study of the main aspects and characteristics of these coins at one place. This lacuna has been filled by S.R. Goyal in his *The Dynastic Coins of Ancient India* (Jodhpur, 1995).¹ In this work he has dealt with the Kushāṇa coins in Chapter III in thirty-seven pages. (pp. 45-82). After giving a brief historical background and historiography of the Kushāṇa coins he discusses their denomination, metals and weight standards. Then follows a discussion on the obverse and reverse devices. Goyal analyses in detail the various explanations offered by scholars for

1. Reproduced in his *The Coinage of Ancient India*, Jodhpur, 1995.

the occurrence of the numerous dieties on Kushāṇa coins, specially those of Kanishka I and Huvishka.

Then follows a study of the language and scripts which in turn is followed by a study of legends and symbols¹ used on the Kushāṇa coins, and of their provenance.

Goyal also gives a detailed exposition, to the extent the space has permitted him, of the coins of individual Kushāṇa kings. Starting with the coins of Miaoś, he has described main aspects of the coins of Kujula, V'ima, Kanishka I, Huvishka, Vāsudeva I and the successors of Vāsudeva I. A brief survey of the coins of Scythian tribal chiefs, Kushano – Sassanian coins, Kidāra Kushāṇa coins and Puri-Kushāṇa coins is also given which is followed by a study of the legacy of the Kushāṇa coinage. In the end Goyal has given a list of the gold coin types of the great Kushāṇas.

Thus, Goyal's Chapter summarises in a capsule form all the main aspects of the Kushāṇa coins. Such a concise study of this coinage based on latest discoveries and researches is not available in any other work.²

1. Cf. my paper 'Buddhist Symbols and Buddha Image of Ancient Indian Coins', *JNSI*, XLIX, pp. 109-14.

2. The recent-most work on the Imperial Kushāṇas, in which their coins have also been studied, is Manoj K. Thakur's *India in the Age of Kanishka* published from Delhi in 1998. It makes some useful observations on early Kushāṇa coinage. (pp. 38-40). See also my *Recent Historiography of Ancient India*, Jodhpur, 1997, pp. 184-213.

Chapter Seven

The Sātavāhana Coinage

Beginnings and Progress of Sātavāhana Numismatics

The Sātavāhanas were the earliest royal family of the Deccan to issue an extensive series of coins presenting numerous types. One of the first scholars to study the relevant series was Sir Walter Elliot. In 1886 he published his *Coins of Southern India*, an invaluable publication for the study of South Indian coinage. But Elliot dealt only with some of the coins of Gautamīputra Yajña Śātakarṇi, Chandra Śātakarṇi and Rudra Śātakarṇi. In 1880 a lengthy article titled 'Āndhra Coins' was published by Thomas Edward in the *Indian Antiquary*, Vol. IX, and in 1893 Hoernle gave a summary description of 183 potin coins from the Chanda hoard in the *Proceedings of the Asiatic Society, Bengal*. (pp. 116-17). In 1902-03 Smith published a paper on Andhra history and coinage in *ZDMG*. In this article he discussed dynastic chronology and political history of the Sātavāhanas. In another article he reproduced a few specimens of the Sātavāhana coins in the British Museum. He dealt with the coins of Śrī Sāta and the 'bow and arrow' type coins of the Kolhapur region. Smith's *Catalogue of the Coins in the Indian Museum, Calcutta*, Vol. I, published in 1906, had a section cataloguing Sātavāhana coins in that Museum. In 1908 was published the monumental work of E.J. Rapson, another pioneer in this particular field of study (*BMC, AWK or A Catalogue of the Indian Coins in the British Museum, Coins of the Āndhra Dynasty, the Western Kṣatrapas*, etc.). His work was a landmark in the progress of the study

of Sātavāhana coinage. It became a model for numismatic studies and still continues to be a reference book on the subject.

Since 1908 a large number of new types of Sātavāhana coins and the names of several Sātavāhana rulers have come to light. These pieces and several relevant problems have been discussed by a number of scholars, including M.F.C. Martin, A.S. Altekar, S.B. Deo, M. Rama Rao, V.V. Mirashi, D.C. Sircar, P.L. Gupta, K.D. Bajpai, A.M. Shastri, S.L. Katare, K. Gopalachari, Gurty Venkat Rao, O. Rama Chandraiah, B.N. Mukherjee, S. Gokhale, I.K. Sarma, Mala Dutta, etc. Their articles have been published in various journals like *The Journal of the Numismatic Society of India*, *Journal of the Asiatic Society of Bengal*, *N.S.*, *Calcutta*, *Journal of Ancient Indian History*, *Nidhi*, *Journal of the Bombay Branch of the Royal Asiatic Society*, *Journal of the Andhra Historical Research Society*, *Numismatic Digest (Journal of the Numismatic Society of Bombay)*, *Journal of Indian History*, *Annals of the Bhandarkar Oriental Research Institute*, *Journal of Oriental Research*, etc. M. Rama Rao published a king-and-type-wise list of Sātavāhana coins in *JNSI*, XX. He also discussed the importance and significance of the coin-types in his Śaṅkara-Pārvatī Endowment Lectures delivered at the Madras University in the year 1959. He has also published a few monographs on Sātavāhana coinage including the *Select Sātavāhana Coins in the Government Museum* (Madras, 1959), and the *Sātavāhana Coins in the Andhra Pradesh Government Museum* (Hyderabad, 1961). Chapters or Sections on Sātavāhana coinage also appeared in a number of works like *A Comprehensive History of India*, Vol. II (edited by K.A.N. Sastri), *Early History of the Deccan* (edited by Yazdani), *The Coins of Karnāṭaka* by A.V. Narasimha Murthy (1975), *Tamil Coins—A Study* by R. Nagaswamy (1981), etc.

A.M. Shastri

A.M. Shastri, one of our brilliant and illustrious scholars, has in recent decades devoted himself intimately to the history and coinage of the Sātavāhanas. In 1972 he edited and published from Nagpur the *Coinage*

of the Sātavāhanas and Coins from Excavations. It contains papers on two topics, viz. (i) The coinage of the Sātavāhanas and the (ii) coins found in excavations, which were submitted for the two Seminars held at Nagpur on 11th and 12th November 1971 respectively, by the Department of Ancient Indian History, Culture and Archaeology of the University of Nagpur at the time of the 59th Annual Conference of the Numismatic Society of India held in the said University.

The first section of the monograph contains eight papers on different aspects of the Sātavāhana coinage. The first paper, by Nisar Ahmad, discusses the attribution and typology of the Sātavāhana coins. He has also tried to take up such coins whose attributions are vague and uncertain. His suggestions on such controversial Sātavāhana coins are, however, tentative. The latter part of his paper contains a list of Sātavāhana coin-types. Here Ahmad has also attempted to determine the characteristic features and associated symbols of the coins of the individual kings of the dynasty.

In the next paper K.D. Bajpai has published six Sātavāhana coins. One of these coins discovered from Vidiśā was struck by punching technique. Bajpai identifies the issuer of this coin with Śātakarṇi I, the third king of the Paurāṇika lists, places him in the middle of the second century B.C. on the basis of his assessment of the palaeography of the coin-legend and gives him the credit of conquering eastern Malwa on the basis of the discovery of this coin from Vidiśā. But Śātakarṇi I can hardly be placed before the later half of the first century B.C. (*infra*) and it is obviously too much to draw such far-reaching conclusions on the basis of the dubious evidence of a solitary coin.

In the next paper Shobhana Gokhale has attempted a religious and social study of the Sātavāhana coins. She has listed the symbols and figures found on coins under suitable heads though she has not discussed their religious significance in the context of the religion of Sātavāhanas. She has also not discussed the religious aspects of the Sātavāhana kingship on the basis of numismatic evidence.

Among the figures that occur on Sātavāhana coins besides human figure, are those of bull, elephant, horse, lion, snake, tree, etc. Both elephant and horse are important symbols of the sovereign authority of Indian kingship. It is quite possible that they were depicted by the Sātavāhana kings to reflect the idea of their sovereignty while the horse could also have been depicted to convey the performance of the horse-sacrifice by them. Some epigraphs testify to the performance of Vedic sacrifices by the kings of this dynasty. Anyway, it is not always possible to determine the exact religious nature of some of these symbols.

According to Gokhale, the depiction of a single and a double mast ship on some coins shows that 'a certain class was engaged in maritime trade and commerce on the eastern coast'. This suggestion was originally made by Rapson. But it is quite likely that the Sātavāhana kings were themselves engaged in trade or that these coins were issued to convey that they maintained a naval force or to commemorate some naval victory of theirs. According to P.C. Chakravarti, for example, it is not fanciful to assume that these coins, found mostly in Tondaimaṇḍala, were issued by Puṣumāvi¹ to commemorate a naval victory which he won over the people of that region. (*The Art of War in Ancient India*, Dacca, 1941, p. 59).

However, the suggestion of P.L. Gupta, made in the next paper, that the silver coins (portrait type) of the Sātavāhanas belonged to Tamildēśa is not acceptable. This supposition is obviously based on his belief that the legend on the reverse of some of these coins is written in Tamil language. It was earlier held that the reverse legend on these coins is in a form of Southern Brāhmī and Drāviḍī Prakrit. It was later suggested by D.C. Sircar that the reverse legend is in old Telugu language. Thereafter, R. Nagaswamy and, following him S. Ramayya, came to the conclusion that the reverse legend is in Tamil language.

In the following paper, contributed by A.N. Lahiri, contacts and

1. According to A.M. Shastri, the ship-type coin belong not to Puṣumāvi but to Yajña Śātakarṇi.

influences as revealed by the Sātavāhana coins are discussed. He thinks that the kings of the dynasty 'chose lead for their coins' perhaps because 'they found it convenient' and because 'it had a greater intrinsic value in those days and was available in plenty'.

In the next paper P.R.K. Prasad has dealt with bi-lingual silver coins of the Sātavāhanas. He suggests that the reverse inscription of these coins is in the Telugu language. This hypothesis rests on the theory of the Andhra origin of the dynasty. As is well-known, the Purāṇas call the Sātavāhanas Āndhras or Āndhrabhṛtyas. But the fact that no Telugu records datable to a period earlier than the 5th century A.D. are available, renders the Telugu nature of these coin legends somewhat doubtful.

In the following paper I.K. Sarma surveys the regional distribution, sequence, chronology and historical significance of the Sātavāhana coinage. He has given a list of the coin-types and two charts that add to the value of his paper. On the strength of 'the stratigraphical evidence of the coins' from sites like Nevasa, Nasik, Paithan, Kaundinyapura, Tripurī and Pauni, he has suggested that the Sātavāhanas rose to power under Śimuka in c. 240 B.C. But this suggestion goes against the Paurāṇika evidence according to which Śimuka exterminated not only the Kaṇvas but whatever was left of the Śuṅgas as well. The Śuṅga dynasty was established around 184 B.C., and the Kaṇvas, who ruled for 45 years followed them more than a century later. Therefore, Śimuka can hardly be placed before the middle of the first century B.C. It may also be recalled that the practice of issuing inscribed coins bearing the name and titles of the king was made popular by the Indo-Greeks in India. From them the Śakas learnt it. The early inscribed Sātavāhana coins, thus, cannot perhaps be placed earlier than the Śakas from whom the Sātavāhanas could have learnt this practice.

Sarma's chronology of the Sātavāhanas is based largely on the Period IV of Nevasa excavations which, he says, is in no case datable to a period 'later than the beginning of the 2nd century B.C.' The date of the Period IV at Nevasa is discussed at length in the following paper by

A.M. Shastri, who has shown that it 'may be placed between late first century B.C. or early first century A.D.' to 'early second century A.D.' In his paper Shastri critically examines all the relevant material with regard to the initial year of the Sātavāhana rule and has come to the conclusion that the establishment of the Sātavāhana authority was effected 'somewhere about the middle of the first century B.C.'

The third paper in the second section of the book deals with the Sātavāhana coins from excavations by P.L. Gupta. He has not only discussed the coins from various excavations but in some cases has also doubted the dating of particular periods of certain excavations.

A.M. Shastri has also written several chapters on Sātavāhanas, some of them having a bearing on Sātavāhana numismatics, in his *Early History of the Deccan—Problems and Perspectives* (Delhi, 1987). In this work he has convincingly shown that the Sātavāhana rule commenced in about mid-first century B.C., has drawn attention to numismatic evidence which places the historicity of the Sātavāhana prince Śaktikumāra of the Jaina tradition almost beyond doubt, and has proved that Vāsishthīputra Śivaśrī Puṣumāvi of coins and inscriptions (who was evidently identical with Śivaśrī Puṣomā of the *Purāṇas*) was different from Vāsishthīputra Puṣumāvi and followed on the royal throne Vāsishthīputra Śātakarṇi, the brother and successor of Vāsishthīputra Puṣumāvi and that the Sātavāhana rule continued in Vidarbha upto c. 285 A.D. making it necessary to assume that the Vākāṭakas, who succeeded the Sātavāhanas there, could not have begun their rule in this region much before the close of the third century A.D.

A.M. Shastri has written numerous research papers on Sātavāhana coins and such other coins which have a bearing on Sātavāhana history. It betrays his deep knowledge of the subject;¹ It is not possible to discuss all of them here. One of his important contributions is in the form of his

1. In *Viśvambharā : Professor V.S. Pathak Festschrift*, Vol. 1 (New Delhi, 1995, pp. 192-202) A.M. Shastri discusses contemporary forgeries and imitations of the Sātavāhana coins.

Presidential Address delivered at the Annual Conference of the Numismatic Society of India held at Sambalpur University on October 18-20, 1981.¹ It is a thematic address in which Shastri discusses pre-Sātavāhana and Sātavāhana coinage of the Deccan. Here he points out that during the interval of about a couple of centuries between the termination of the Mauryan power in the third century B.C. and the rise of the Sātavāhanas sometime in the second half of the first century B.C. a fairly large number of uninscribed cast and die-struck specie in cheap metals like copper, potin and lead² were issued by obviously local powers. These have been found on surface as well as in stratified contexts in the excavations at Brahmapuri (Kolhapur), Chandravalli (Chitradurga district, Karnataka), Nevasa (Ahmadnagar district, Maharashtra), Pauni (Bhandara district, Maharashtra) and Bhokardan (Aurangabad district, Maharashtra). Many such coins have been collected by various numismatists as surface finds from Kotalingala (Karimnagar district, Andhra Pradesh), Nasik region, etc. These legendless coins were followed by coins with inscriptions referring to their issuing authority. They are found from the Telengana region of Andhra Pradesh, Vidarbha region of Maharashtra and several sites of Madhya Pradesh and belong to the pre-Sātavāhana period.

Among the important Sātavāhana coins Shastri has here discussed the die-struck copper issues of Chhimuka Sātavāhana, Śātakarṇi and Sātavāhana found as a part of the surface find at Kotalingala and in Nevasa excavation, of Siri Satakumāra (identified by Shastri with prince Satisiri of the larger Naneghat inscription and prince Śaktikumāra of the late Jaina tradition) encountered in the Satanikota (Andhra Pradesh) excavations and two silver portrait issues of Vāsishṭhīputra Śivaśrī

1. *JNSI*, XLIV, i and ii, 1982, pp. 1-16.

2. A report on the coins from the second season of Nevasa excavations mentioned a gold-plated silver Sātavāhana coin found from there. Being of gold, a metal not used for Sātavāhana coins, it could be a unique find, but the chemical analysis by Vishwas D. Gogte and S.J. Mangalam showed that in reality it is a brass coin. (*Numismatic Studies*, Vol. 4, ed. by A.M. Shastri and Manmohan Kumar, Delhi, 1996, pp. 25-30).

Pulūmāvi—one found in a private collection at Indore and other in the excavation at Dhulikatta in Andhra Pradesh. On the basis of the coins of Kumbha Śātakarṇi, Karṇa Śātakarṇi and Śaka Śātakarṇi found in the Brahmapuri and Tarhala hoards (who are unknown from any other source), Shastri suggests that they were local Śātavāhana chiefs who ruled in the Vidarbha area after the fall of the main Śātavāhana dynasty. From this he rightly concludes that it was Vidarbha which was the last stronghold of the Śātavāhanas, and not Andhra as is generally supposed. On the nature of the Dravidian language found on the bilingual coins of the Śātavāhanas, Shastri very cogently suggests that ‘‘it is futile to see in it either Telugu or Tamil in the modern sense and that it is actually a Dravidian language which was the precursor of both these languages.’’

I.K. Sarma

The valuable literature on the coinage of the Śātavāhanas produced in the first three decades after the dawn of independence in the form of research papers and chapters in learned works, became a source of encouragement for all concerned. In order to systematise it and give a comprehensive picture of the Śātavāhana coinage, I.K. Sarma brought out a well-written monograph, his Doctoral dissertation, *Coinage of the Śātavāhana Empire*. (Delhi, 1980). His work is a first-class piece of scholarship. It is divided into seven chapters : 1. Historical Introduction; 2. Recent Discoveries of the Śātavāhana Coins: A Review; 3. Technical Aspects of the Symbolism; 4. Kingwise Coin Details and Their Regional Distribution; 5. Silver Coinage of the Śātavāhanas; 6. Chronology, Sequence and Historical Significance of the Śātavāhana Coinage; and 7. Corpus of the Śātavāhana Coinage. Sarma, for the first time, tried to post the data of the Śātavāhana coins in clear perspective and used it to check the historical, cultural and economic events of the times. He endeavoured to register all the discoveries of the Śātavāhana coins right from the beginning till the year 1979, both published and unpublished. He also took care to sift evidence in respect of all the ill-recorded and unrecorded coins. He prepared an exhaustive corpus and put the find-

spots on a map, clearly defining the ancient geographical zones, and superposed on it epigraphical and literary data.

On the hotly debated question of the chronology of the Sātavāhanas and the number of generations of their rulers, Sarma sides with those historians who believe in the longer chronology. He has divided the Sātavāhana coins into several groups: 1. Coins of early rulers; 2. Coins of pre- and Gautamīputra periods; and 3. Coins of the post-Gautamīputra period. (p. 61). According to him, the language used on them is Telugu, and not Tamil. Unlike other scholars who think that the Sātavāhana coins are devoid of artistic beauty and merit, Sarma appreciates not only their artistic beauty but also originality. (p. 63). He firmly believes that the early Sātavāhana kings were also worshippers of Lord Viṣṇu and goddess Śrī and their entire coin symbolism surrounds the Vāsudeva-Kṛṣṇa cult. (p. 5). The larger Naneghat record refers to the worship of Kumāra, Indra, Saṁkarshaṇa, Vāsudeva, Chandra-Sūrya, Yama, Varuṇa, and Kubera. He points out that the *Gāthā Saptaśatī* tells us that wooden images of Indra were worshipped. Again, from two Kadamba records we learn that a great king named Śātakarṇi was a worshipper of Śiva. These facts allude to the rapprochement of the Vedic and Paurāṇika traditions. The prefix Śiva in the name of some later Sātavāhana rulers suggests their predilection for Śaivism. But the fact that the Sātavāhanas were followers of Vedic and Paurāṇika religions and belonged to the Brāhmaṇa caste, need not be taken to mean that other religious sects were neglected. Sarma points out that under these benevolent kings Buddhism flourished in the Deccan as never before or after. (p. 6). According to Sarma, legends on the coin types of Sātavāhana, Śātakarṇi I and Satisiri form a group by themselves and betray their likeness to the Naneghat inscriptions.

Sarma suggests that various symbols and devices on the Sātavāhana coinage may be arranged in many ways taking into consideration either their frequency and position or their meaning and significance. Among the main symbols of the Sātavāhana coins are included the bull, elephant, lion, horse, hill, human figure, *chakra*, ship, portraits and multi-symbol

varieties. As regards the three variants of the hill symbol— 1. three-arched, 2. six-arched, and 3. ten-arched— Sarma postulates that each of them has a distinct chronological horizon among the coin series of the Sātavāhanas. He rejects the suggestion of A.K. Narain that a *chakra* of 12 spokes found on a unique copper coin of Vāsishṭhīputra Puḷumāvi represents 12 *nidānas* of the Buddhist doctrine laid down in the *Paṭichcha Samuppāda*, and that this king embraced Buddhism. Auxiliary symbols, according to Sarma, include Ujjain symbol, tree-in-railing, *śrīvatsa*, triangle-headed standard, river-with-fishes, crab, sun, moon or crescent, *svastika*, *nandīpada*, lotus, conch, etc. They are found both on the obverse and reverse as combination symbols, but occasionally assume great importance as reverse symbols. *Śrīvatsa*, triangle-headed standard, crescent and *svastika*, apart from being auspicious symbols, assume the status of royal *lāñchhanas* and appear at the beginning and end of the royal records. The small symbols like *nandīpada*, wavy line, sun, moon, etc. enhance the religious significance of a particular type. (pp. 68 ff.).

A silver coin was reported by P.J. Chinmulgund from Junnar (District Pune).¹ The coin measured 19 mm. and weighed 108 grams. Its general description is as follows :

Obv. : legend *Raṁṇo Siri Sāta (ka)* — below an oblong enclosure. Within it the legend *Nāganikāya*, to the last; figure of a horse to right (head of the horse is off the flan, but body is quite clear).

Rev. : Ujjain symbol with a *svastika* in each single-lined orb; a pellet between the orbs of the symbol; to the left diagonally a spear like object.

The coin has been attributed to Śātakarṇi I and Nāganikā by Chinmulgund believing that the script of its legend is closer to that of the Naneghat records and the weight of the coin corresponds to double *kārshāpaṇa*. But Sarma finds no justification regarding this attribution of the coin (p.

1. *JNSI*, XXXVIII, Pt. i, pp. 6-11.

108) and argues that the illustration of the coin published by Chinmulgund is not satisfactory. Though the coin is approximately of the same size as the other silver types of the Sātavāhanas, but horse is not represented on the coins of the early Sātavāhanas. The reverse symbols does not tally even with the other ordinary issues of the pre-Gautamīputra series. In the entire series of Indian coinage, no ruler has issued a coin type, that too in silver, with a legend containing the name of a queen.

All the silver portrait coins of the Sātavāhanas are circular, cast out of double-mould as is evident by the unique lower part of a mould found from the Nāgārjunīkoṇḍa excavations. In size they vary from 14 mm. to 17.5 mm., the normal size being 16.5 mm. Their weight varies from 1.620 grams to 2.627 grams, but generally the weight-range falls between 1.814 to 1.944 except those of Yajña which weigh between 1.944 to 2.332. Thus, ‘‘they generally conformed to the weight standard of 20-*rattīs*, like the Western Kshatrapa issues which were evidently adopted from the light weight bilingual hemidrachms of Graeco-Indian kings. They were modelled after the characteristic silver coins of the Satraps of Western India and are of the same shape, size and fabric and correspond to the *ardhakārshāpana* standard.’’ (p.111). However, Sarma is of the view that the portraits on the coins of the Sātavāhanas betray typically Indian characteristics as well. (*ibid.*).

I.K. Sarma’s work is, on the whole, a significant and scholarly contribution and is the most comprehensive treatise on the subject since the publication of E.J. Rapson’s *BMC* in 1908.

D. Raja Reddy and P. Suryanarayana Reddy

The small monograph titled *Coins of the Satraps of the Sātavāhana Era*, by D. Raja Reddy and P. Suryanarayana Reddy published in 1983 from Hyderabad deals with the coins of minor dynasties of the Sātavāhana period, i.e. Mahātalavaras, the Mahāsenāpatis, the Mahārathīs, the Mahāgrāmikas and some miscellaneous coins. In the end the Reddys describe some inscribed and uninscribed seals of this period. It is a controversial question whether the issuers of these coins were

independent rulers or feudatories of some big power like Sātavāhanas. P.L. Gupta feels that these coins were issued by them when they became independent. This view is obviously based on the notion that the privilege of issuing coins was strictly associated with royalty. But the Reddys believe that *Talavara*, *Raṭhī* or *Mahāraṭhī* and *Mahāgrāmika* were not the names of dynasties but official designations. T.P. Verma agrees with this view.¹ Possibly the issuers of these coins were influential rulers of their parts of the territories under the suzerainty of a supreme ruler and because of their high positions they issued coins with the official designation conferred on them by their overlords.

In the first Chapter the Reddys describe some coins of the Mahātalavaras found in the Andhra Pradesh area. Some of these coins have been brought to light for the first time by them. On the basis of the obverse devices these coins are divided into two main categories. The horse device coins are more numerous and are found mainly to the north of the Krishna river while the bull type coins are found from Chandavaram, Venukonda and Kalyandurg, all south of Krishna. On the basis of legends these coins can again be divided into two types — the first one, having the legend *Mahātalavara*, belongs to an earlier period while those with longer legends *Mahātalavarasa Maja Samikasa Siva Sebakasa* belong to later period, i.e. to the 2nd-3rd centuries A.D.

The second Chapter deals with the Mahāsenāpati coins.² On the obverse these coins have *svastika* in the centre and legend around. The reverse side has *vajra* and arrow devices but no legend. The authors have included some other coins which could belong to this class. These coins come from the vicinity of Hyderabad and the area north of it.

The third Chapter is devoted to the Mahāraṭhī coins which are more numerous and varied; some have legends and some are without them. They yield the names of at least six Mahāraṭhī rulers Sadakan Putasa, Maharathis Mahahathisa, Puta Sivala, Siva Mahahathisa, Khada Pori

1. *JNSI*, XLVI, p. 148.

2. For Mahāsenāpati coins also see A.H. Siddiqui, *JNSI*, LVI, pp. 15-17.

Hathisa and Sivakhadasa. A majority of these coins were found from Veerapuram in the N.E. Deccan area which might have been the original home of the Mahārathīs.

The fourth Chapter of Reddys' work deals with the Mahāgrāmika coins. These coins bear *svastika* on the obverse with legend and part of the Ujjain symbol on the reverse. In this Chapter some seals of the Mahāgrāmikas are also illustrated. Then the Reddys have described some miscellaneous coins after which comes the Chapter on some seals of the Sātavāhana period.

Incidentally Raja Reddy and Suryanarayana Reddy have contributed significantly to Sātavāhana numismatics in the form of research papers as well. For example, in the *Numismatic Studies*, Vol. I, ed. by Devendra Handa published from New Delhi in 1991 they have published some hitherto unpublished Sātavāhana coins from Kotalingala and Sangareddy. (pp. 45-51). These include the coins of Chhimuka Sātavāhana, Sata Śrī and Puḷumāvi and Vāsishṭhīputra Śivaśrī Śātakarṇi. In Vol. 2 of the same work they have published some rare pre-Sātavāhana coins of the Deccan (pp. 57-61) and some more new Sātavāhana coins of king Sātavāhana, Śātakarṇi, Satasiri, Gautamīputra Śātakarṇi, Vāsishṭhīputra Puḷumāvi, Śivaśrī Puḷumāvi, Chanda Śātakarṇi and Karṇa Śātakarṇi, mainly found from Armoor and Sangareddy. (pp. 69-80). Several other papers on Sātavāhana coins have been published by these scholars in different journals which it is not possible to discuss here.

Mala Dutta

The continuous discoveries of the Sātavāhana coins through explorations, excavations and chance finds, make periodic re-assessment of the Sātavāhana coinage a necessity. Moreover, published writings do not usually include a comprehensive study of the problem of attribution of the Sātavāhana coins on the basis of up-to-date information, a critical estimate of the place of this coinage in the currency system of the Deccan and several such important issues. Mala Dutta's *A Study of the Sātavāhana Coinage* (New Delhi, 1990) seeks to fulfil this *desideratum*. Her study, a

Ph. D. Thesis submitted to and approved by the University of Calcutta, is mainly based on the coins of the Sātavāhanas so far discovered and preserved in different collections (*viz.* The British Museum, London; The Indian Museum, Calcutta; The Prince of Wales Museum, Bombay; Government Museum, Madras; Andhra Pradesh Government Museum, Hyderabad, etc.).

Mala Dutta has taken into account different hoards including Tarhala, Chanda, Jogalthambhi, Wategaon, Bidar and Kolhapur and stratified evidence for coins yielded in excavations such as at Nevasa, Kolhapur, Bhokardan, Nasik, Paithan, Peddabankur, Kaundinyapur, Pauni, Tripuri and Besnagar. She has made an attempt to cull information also from epigraphic records of the Sātavāhanas and their contemporaries like the Kshaharātas and the Kārdamakas, and has considered the evidence of the Paurāṇika accounts and other literary texts like the *Periplus*, *Geographicon*, etc.

Before undertaking the main task Mala Dutta sums up and discusses the known data about the origin, nationality and original territory of the Sātavāhana royal family, chronology of their rule and also about the extent of the Sātavāhana kingdom for a better understanding of their coinage. This forms the subject-matter of her Introduction which constitutes Chapter 1 of her work.

Chapter 2 of Mala Dutta's work deals with the distribution of Sātavāhana coins and the problem of their attribution to different Sātavāhana rulers. Identical names used by different Sātavāhana rulers raise problems regarding the attribution of coin types. In this context Mala Dutta has taken into consideration the regional distribution of coins also. In this chapter coins of early and later Sātavāhana kings have been discussed and suggestions have been offered regarding those coins about whose attribution there are differences of opinion. In earlier years the problem of the attribution of the Sātavāhana coins was also discussed in detail by I.K. Sarma, and Nisar Ahmad offered some suggestions on it (*supra*), but the treatment of Mala Dutta is more comprehensive in this

regard though she does not make a reference to Nisar Ahmad's paper on this problem.

Chapter 3 of Dutta's work discusses figures and symbols on the Sātavāhana coinage while Chapter 4 describes the coin-hoards and coins found in excavations. Here their importance for reconstructing the history of the Sātavāhanas has also been discussed. Chapter 5, which discusses the characteristics of the Sātavāhana coinage, tries to ascertain as to how far the use of the relevant coinage was local, dynastic or personal in character. Metrology of the Sātavāhana coinage has been discussed in Chapter 6. Chapter 7 deals with the currency system of the Sātavāhana empire and its relation with other contemporary coinages. The legacy of the Sātavāhana coinage has also been brought out in this Chapter.

The appendices of Mala Dutta's work (1. Āndhra kings known from the *Purāṇas*; 2. List of the Sātavāhana epigraphs; and 3. A consolidated list of the Sātavāhana or Āndhra kings) deal with such topics which may prove helpful in understanding properly a number of points raised and discussed in the main Chapters. In short, Mala Dutta's work seeks to look at the Sātavāhana coinage from all possible angles.

S. R. Goyal

Though in recent years Sātavāhana coinage has been treated in two Catalogues, various monographs and numerous research papers, a compact study of the Sātavāhana coinage in all its aspects at one place on the basis of latest materials has been wanting. This lacuna has been filled by S.R. Goyal in his *The Dynastic Coins of Ancient India*. (Jodhpur, 1995).¹

The chapter of Goyal on the Sātavāhana coins comprises of 42 pages. It seeks to incorporate the results of latest discoveries and researches. In the historical background of the Sātavāhana coins, with which the Chapter opens, Goyal makes it clear that he subscribes to the shorter chronology of the Sātavāhanas. Then follows a section on Sātavāhana

1. Reproduced in his *The Coinage of Ancient India* (Jodhpur, 1995).

numismatography. Thereafter sections on the name of the Sātavāhana coins, metals used, manufacturing techniques, shapes, weight standards, script and languages, and artistic merit of the Sātavāhana coins are given. The religious leanings of the Sātavāhana rulers as known from the coins, legends and data yielded by coins found in hoards and excavations on spatial and chronological relationship of their issuers are discussed in the following sections. Then the study of the symbols and devices found on the Sātavāhana coins and also the problem of the attribution of the coins bearing identical royal names and some times even the same matronymics, on the basis of palaeography, types, symbolism and regional distribution have been undertaken in detail. Then follows a section on the silver coins of the Sātavāhanas — both portrait issues and non-portrait issues—after which a small section discusses portrait coins of the Sātavāhanas in lead.

Lastly, S.R. Goyal has discussed coins of the feudatories of the Sātavāhanas and of their successors in the Deccan and the Far South which is followed by a List of Select Sātavāhana Coins. Thus, Goyal has brought together all the relevant material on the Sātavāhana coinage known till 1994 and results of the latest researches in brief alongwith his own suggestions here and there. Such a compact but uptodate study of the Sātavāhana coinage is not found in any other work.

B.N. Mukherjee

B.N. Mukherjee is one of those scholars who have devoted themselves to numismatic and allied studies. However, his main area of interest is the Śaka-Kushāṇa coinage. But he has done some valuable work on Sātavāhana coinage also. The Doctoral dissertation of Mala Dutta on the Sātavāhana coinage discussed above was actually prepared under his guidance.

The views of Mukherjee on Sātavāhana coins and the light they throw on political history of the dynasty are found in brief in his 'Commentary' on the *Political History of Ancient India* by H.C. Raychaudhuri. Discussing the numismatic evidence on the date of the

rise of the Sātavāhana power, for example, he opines that as the age of Period IV at Nevasa cannot be placed much earlier than c. 1 A.D., king Sātavāhana whose coins are found in its topmost layer, cannot be placed long before the beginning of the Christian era. He rejects the view that these and other coins of king Sātavāhana having differences in metal, shape and spelling of name (but no real chronological discrepancy in the palaeographical features of their legends) could be assigned to several rulers of this name from third century B.C. to first century B.C.¹ He opines that these coins could have been the issues of different mints of a single monarch (p. 666) and identifies him with Śimuka Sātavāhana (Chhimuka Sātavāhana of coins) or Kumāra Sātavāhana. (p. 682).² On the basis of the findspots of the early Sātavāhana coins he agrees with the view that the original territory of the Sātavāhanas probably lay in the Central Deccan (p. 683)³ and coins bearing such names as Śātakarṇi or Puṣumāvi borne by several rulers in the Paurāṇika lists, may be attributed on the basis of the palaeographic features of their legends. Further, on the basis of their types and the major findspots, different classes of the Sātavāhana coins can be attributed to different zones of regular circulation. (p. 684).⁴

1. For a criticism of the view that there flourished several rulers of the name Sātavāhana, see also Amiteshwar Jha, in *Numismatic Panorama*, ed. by K.K. Maheshwari and Biswajeet Rath, New Delhi, 1996, pp. 49-58.

2. Cf. *Indian Studies—Past and Present*, VII, No. i, 1965, pp. 65-68; *Numismatics and Archaeology*, ed. by P.L. Gupta and A.K. Jha, Nasik, 1987, p. 89 f.

3. D. Raja Reddy and P. Suryanarayana Reddy, *Koṭalingal Coinage of the Sātavāhanas and Other Local Rulers—A Profile*, Hyderabad, 1987, pp. 5-6 and 8 ff. P.V. Parabrahma Sastry, *Sātavāhana Epoch—A New Light*, Hyderabad, 1994, pp. 10-11.

4. Cf. *IHQ*, XXXIV, March, 1958, p. 57f.

Chapter Eight

The Coinage of the Gupta Empire

The Beginnings : V.A. Smith and John Allan

The study of Gupta coins started even earlier than that of the Gupta inscriptions.¹ The first hoard of Gupta gold coins, which probably consisted mostly of the issues of the later Gupta emperors, was discovered as early as 1783 at Kalighat,² ten miles from Calcutta, by a certain Mr. Nab Kishen who seems to have presented about 200 of its coins to Warren Hastings, the then Governor General under the East India Company. Hastings sent most of these coins to the Directors of the East India Company in London who presented 24 of them to the British Museum, a nearly equal number to the Museum of Mr. Hunter, and some pieces to the Ashmolean Museum, Oxford, and to the Public Library at Cambridge. The rest were eventually melted down. The coins of the British Museum, however, were examined by Mr. R. Payne Knight, a celebrated numismatist, in the early decades of the nineteenth century. He could not decipher the legends inscribed on these coins and treated them as just antiquities. He guessed that they were an imitation of Greek coins.³ Marsden, however, in his *Numismata Orientalia*, published in 1823, successfully read the name Chandra and the title Śrī Vikrama.⁴ Probably

1. For the progress of Gupta numismatography, cf. my paper 'Historiography of Gupta Numismatics', *VII*, Vols. XXXI-XXXII, 1993-94, pp. 361-68.

2. Allan, J., *BMC, GD*, pp. cxxiv ff.

3. Quoted by Richard Burn in *Bhārata Kaumudī, Studies in Indology in Honour of Dr. R.K. Mookerji*, p. 148.

4. *Numismata Orientalia*, 1823, pp. 726 ff.

he was helped by Charles Wilkins, who had attained partial success in deciphering an inscription of the Gupta period some years earlier, though his epigraphic studies were almost ignored at that time.¹ Marsden surmised that these coins were issued about the fourth century A.D., though his reasoning was based on material which would now be rejected outrightly.²

In 1814, the Asiatic Society of Bengal laid the foundation of a museum where coins were also exhibited. In 1833, H.H. Wilson contributed a paper to the *Asiatic Researches*, Vol. XVII, on the coin-collection of the Museum as it stood in that year. The plates which illustrate this paper were drawn by James Prinsep who was Wilson's assistant in the Calcutta mint. At that stage neither Prinsep and nor Wilson could make much of the Gupta coins. On the reverse of a Standard type coin of Samudragupta Wilson recognised *pa,ra* and *ka* but he could neither complete the word *parākramaḥ* and nor decipher any letter in the legend on the obverse. Similarly, on the reverse of a coin of Prakāśāditya he suggested *Śrī Praki* for *Śrī Prakā (śāditya)* and thought that the reading might be *Śrī Prakīrtti*. At that time nobody except Marsden had realized that the name of the king was written on the obverse in a perpendicular fashion. Within a few years, however, when the study of the Gupta inscriptions was resumed, the decipherment of the legends on the Gupta coins became easier. By 1835, Prinsep had made considerable progress in reading their marginal inscriptions and showed that the Gupta coins followed the pattern of the 'Indo-Scythic' coinage, but were purely Indian in execution.³

After the decipherment of the Gupta script, it became possible to connect the kings known from their coins with the kings mentioned in the Gupta records. It made the study of the Gupta coins immensely interesting and highly rewarding. But at that time Indian numismatics

1. *HIG*, p. 2.

2. *Ibid.*, p. 17.

3. *Ibid.*

was in its infancy and scholars paid greater attention to the internal evidence of the coins, i.e. in the data provided by their types, symbols, inscriptions, fabric, metrology, etc. But they soon realized that the early Gupta emperors had modelled their coinage after the gold coinage of the Later Imperial Kushāṇas, though very soon the process of Indianization was at work and within a few decades the Gupta coinage had become almost thoroughly Indian in character. It led Allan to postulate the chronology of the early Gupta coins on the basis of gradual decrease in foreign influence on them. The hypothesis was basically sound, though too much emphasis on it led on occasions to quite erroneous conclusions.¹

In the later half of the nineteenth century and in the early years of the twentieth, apart from stray pieces, a number of new hoards of the Gupta gold coins were found. Prominent among them were those which were found at Bharsar (1851), Jessore (1852), Allahabad (1864), Hugli (1883), Tanda (1885), Kotwa (1886),² Basti (1887), Hajipur (1893) and Tekri Debra (1912). Their contents were intensively studied by the leading numismatists of the period and the results of these investigations were summed up by V.A. Smith in his *Catalogue of the Coins of Ancient India in the Indian Museum, Calcutta*, Vol. I : *The Early Foreign Dynasties and the Guptas* (1906)³ and John Allan in his famous *Catalogue of the Coins of the Gupta Dynasties in the British Museum*, published in 1914. Allan's *Catalogue* remained the basic source book on Gupta coins for about half a century and is still a must for researchers on the subject.

Several other hoards came to light after the publication of Allan's work including those found at Kasarva (1912), Sakori (1914), Mithathal (1915), Bamnala (1940), Bayana (1946), Kusumbhi (1947), Khairatal (1948) and Kumarkhan (1952).

1. *Ibid.*, pp. 102-10.

2. Kotwa hoard is mentioned in *JRAS*, 1893, p. 47. However, it is not included in the list of the Gupta hoards given in the *BMC, GD*, pp. 18-19.

3. Earlier in 1884 the *Catalogue of the Coins of Gupta Dynasty* was published by V.A. Smith (*JASB*, 1884, pp. 119 ff., with four plates). It was improved by the same author and appeared with additions in *JRAS*, 1889, pp. 1-159, with five plates.

A.S. Altekar

The Bayana hoard is the biggest hoard of the Gupta gold coins so far discovered. A.S. Altekar published a separate catalogue of its contents in 1954. (*The Gupta Gold Coins in the Bayana Hoard*, Bombay). By that time Allan's famous *Catalogue*, published in 1914, had long been out of print. Besides, numerous new types of Gupta coins had been brought to light during the intervening four decades and had been discussed in numismatic and other research journals. The Numismatic Society of India, therefore, planned a *Corpus of Gupta Coins* and entrusted the work to A.S. Altekar, who was well-known for his researches in Indian numismatics. He set himself immediately to the task. The typescript of the Volume was ready for the press as far back as 1946. But before its printing could be taken up, the unique hoard of Gupta gold coins at Bayana in the former Bharatpur State came to light and the task of cataloguing its coins was also entrusted to Altekar. On examining the hoard Altekar noticed that it contained several new types of the gold coins of the Guptas. He, therefore, decided to publish the catalogue of the Bayana hoard first. This was done in 1954. The preparation of *The Corpus of Gupta Coins*, which had been temporarily shelved, was next taken up and brought up-to-date. The Numismatic Society published it as Volume IV of its *Series of the Corpuses of Indian Coins*.

Altekar's *Catalogue of the Gupta Gold Coins in the Bayana Hoard* is a colossus which brought up-to-date the material that had cropped up since the publication of Allan's *Catalogue*. It gives a description of 1821 coins found in the hoard and illustrates 459 of them, 188 more than illustrated by Allan. It disclosed a number of types and varieties that were unknown till then.

The *Bayana Hoard* is divided into two Parts, viz. Introduction and the Coin Catalogue proper. After giving an account of the discovery of the hoard in Section I of his Introduction running in 158 pages, in Section II Altekar describes other hoards of Gupta gold coins and the importance of the Bayana hoard. Section III deals with the history of the Gupta dynasty

while Section IV, in over 80 pages (xl-cxx), describes the coinage and coin types of the Imperial Guptas. Here the treatment is exhaustive and comparative. Not only the coin types of the hoard are described, but attention is also drawn to a few types and varieties that are not represented in it. The number of coins of each type in different Museums is also stated and references are given to the corresponding varieties in Allan's *Catalogue*. Section V of the Introduction deals with the metrology of each variety and type, Section VI with the palaeography of the legends, Sections VII with symbols and Section VIII, written by Motichandra, discusses the data of Gupta gold coins for ascertaining the fashions of dress and ornaments and varieties of furnitures and weapons in the Gupta age. Then follows the description of the coins of the Bayana hoard included in the *Catalogue* (pp. 1-308) followed by a brief description of the coin types of the successors of Kumāragupta I, not represented in the hoard, and eight Appendices.

The Bayana hoard greatly advanced our knowledge about Gupta coinage. Of the 1821 recorded coins, Samudragupta's Standard type accounted for 143 specimens, Chandragupta II's Archer type for 798 (of which 757 were of Archer (Lotus reverse) type, and Kumāragupta I's Horseman type for 305 and Archer type for 183 specimens, thus confirming the fact that the above were the commonest types in Gupta mintage. These 5 types together accounted for 1429 specimens i.e. 79 percent of the total, and the remaining 25 types were restricted to 392 specimens. An analysis of the hoard shows that all the eight types of Samudragupta (if Chandragupta-Kumāradevī and Kācha coins are attributed to him) were included in it, viz. the Standard, Aśvamedha, Battle-axe, Archer, Lyrist, Tiger-slayer, Kācha and King-and-Queen types. Of Chandragupta II, the usual 6 types, viz. Archer (Throne reverse), Archer (Lotus reverse), Horseman, Chhatra, Lion-slayer and Couch types were found in the hoard. The two disputed types of this king, viz. King-and Queen-on-Couch and Standard types, are conspicuous by their absence. The unique specimen of Chakravikrama

type, attributed to Chandragupta Vikramāditya, is the most significant type brought to light by the hoard. For Kumāragupta Mahendrāditya, all his previously known nine types occur in the hoard, a feature quite in consonance with that of the coins of his two illustrious predecessors. These nine types are : Archer, Swordsman, Horseman, Peacock, Tiger-slayer, Lion-slayer, Ásvamedha, Elephant-rider and Apratigha (the former Śrī-Pratāpa type). The Elephant-rider-Lion-slayer type, of which a single specimen was acquired by Hiranand Shastri, was represented by 4 new specimens. Then there were 4 quite new types contributed by this hoard viz. Chhatra, Rhinoceros-slayer, Lyrist and King-and-Queen. The hoard was probably buried during the troubled days which preceded and followed the death of Kumāragupta I, for it contained no coins of his successors, except the solitary Chhatra type coin of Kramāditya, who has been identified with Skandagupta or Ghaṭotkachagupta by different scholars. The coins of the hoard also enabled the scholars to complete a number of legends that were not properly deciphered till then.¹

Besides the problem of objective recording, these coins raise important historical and chronological problems. Take for example the attribution of the coins of the Chandragupta-Kumāradevī type. Altekar has examined in detail the various arguments advanced by Allan to prove that they were commemorative medals struck by Samudragupta in honour of his parents and has tried to show that these coins were jointly issued by Chandragupta I, the Gupta king, and Kumāradevī, the Lichchhavi princess. The attribution of Kācha coins raises another problem. Altekar changed his opinion on this question several times. In his Hindi book on the Gupta coins, of which the Preface is dated 25.1.1954, he devoted six pages to prove the identity of Kācha with Rāmagupta and make the latter a full-fledged Gupta emperor who succeeded Samudragupta. In the *Bayana Hoard*, of which the Preface is dated earlier (12.9.1953), Kācha and Rāmagupta are not identified and Kācha is taken as a predecessor of

1. For a study of the legends on the Gupta gold coins in the light of the *Vishṇusahasranāma* cf. B.Ch. Chhabra, *JNSI*, IX, ii, pp. 137-45.

Samudragupta 'who successfully contested the throne and ruled for some time' (p.xvi), and Rāmagupta as a successor of Samudragupta who preceded Chandragupta II, probably because the discovery of the copper coins of Rāmagupta in Malwa had proved that 'one and the same ruler could not have issued the coins with the name of Rāmagupta on copper coins and Kācha on gold ones, even if he had these two names.' (p. xvi). However, in his *Coinage* published in 1957 Altekar placed Kācha after Samudragupta.

The Bayana hoard also helps us to revise the reading on the 'Two Queens type' coin of Kumāragupta, from *Śrī-Pratāpa* to *Apratigha* which is now undisputed. Its correct interpretation, however, is still a matter of controversy.

The numismatic sequence of the issues of Samudragupta as fixed by Allan on the basis of progressive Indianisation was as follows : I. Standard; II. Archer; III. Chandragupta-Kumāradevī; IV. Battle-axe; V. Kācha; VI. Tiger-slayer; VII. Lyrist; and VIII. Aśvamedha. Altekar has departed from this arrangement in favour of another, viz. I. King-and-Queen; II. Standard; III. Aśvamedha; IV. Battle-axe; V. Archer; VI. Lyrist; VII. Tiger-slayer; and VIII. Kācha.

Altekar summed up the knowledge of the Gupta gold coins to date in his *Coinage of Gupta Empire and its Imitations* (Corpus of Indian Coins, Vol. IV), published in 1957 from Varanasi. It draws heavily on his *Bayana Hoard*. It is divided into twelve chapters. In its Chapter I he has briefly dealt with the political history of the Gupta dynasty (pp. 1-11) while in Chapter II he has given a general survey of the Gupta coinage. (pp. 12-25). Chapters III to X describe the coinage of the great Gupta emperors from Chandragupta I to Skandagupta. (pp. 26-261). Chapter XI deals with the coins of the successors of Skandagupta. (pp. 262-86). The silver and copper coins of the Guptas are also discussed and described at appropriate places. Symbols, metrology, palaeography and hoards are dealt with in Chapter XII. (pp. 287-314). The work carries seven Appendices of which Appendix I (pp. 315-37) discusses the imitations

of the Gupta coinage while Appendix II (pp. 338-59) describes new discoveries which were made between 1953-57 when the book was in press.

The earlier publication of the *Bayana Hoard* did not render the publication of the *Coinage* superfluous because the Bayana hoard contained only gold coins of the Gupta kings. Their silver and copper coins were not included in it and though Altekar had described and discussed them in his Introduction to that volume, they were not illustrated. Besides, the Bayana hoard was apparently buried in the beginning of Skandagupta's reign as it did not contain any coins of the successors of Kumāragupta I except the solitary coin of Kramāditya. Though Altekar described them briefly in order to give the reader of the *Bayana Hoard* a fair idea of the coinage of the whole dynasty, the treatment of this matter was necessarily sketchy. The *Coinage* gives a detailed description of all these coins together with illustrative plates. It is, therefore, more comprehensive than the *Bayana Hoard*.

Guptakālīna Mudrāyeṇ (Coins of the Gupta Age) by Altekar (Patna, 1954) is also an authoritative treatise on Gupta coins written in Hindi. It contains twelve chapters dealing with Gupta history, coins and coin-types, coins of each emperor, a detailed description of all the coin-types issued in gold, silver and copper, including the coins of the Later Imperial Guptas, viz. Purugupta, Ghaṭotkachagupta, Narasimhagupta, Kumāragupta II, Budhagupta, Vishnugupta, Vainyagupta and Prakāśāditya.

In his works, at several places Altekar states and discusses the views of other scholars on controversial matters. But while stating his own views he is rarely dogmatic. He always keeps an open mind and is prepared to change his opinion when adequate evidence is put forward. For example, he changed his opinion on Kācha coins several times. Similarly, while describing the Chakravikrama type coins of Chandragupta II in Chapter II, he at first stated that the god who is seen therein bestowing a gift on the king before him is Vishṇu himself (p. 23), but later, after weighing

the evidence put forward by other scholars, he changed his opinion and admitted that the divine figure is that of the Chakra Purusha aspect of Vishṇu. (pp. 147-48). It is now almost unanimously believed that the figure inside the Chakra represents Chakra Purusha who is shown bestowing on Chandragupta II three symbols of royal power, viz., *prabhu-śakti*, *utsāha-śakti* and *mantra-śakti*, i.e. the kingly virtues of authority, energy and counsel.¹ The symbology of this scene becomes clearer in the light of the data provided by the *Ahīrbudhnya Saṃhitā*, a well-known text of the Pāñcharātra Āgama, which 'on the basis of the internal evidence bearing on the religious conditions portrayed in it, should be assigned to Gupta period.'² From it we learn that Vishṇu, in the form of Chakra, was held as the ideal of worship for kings desirous of obtaining universal sovereignty. The *Ahīrbudhnya Saṃhitā* clearly states that he who adores Lord Chakra Purusha becomes a Sārvabhauma or Universal Ruler in this world and also becomes a ruler in the other world. Anyone who does not pay homage to this deity cannot attain supreme kingship. As we have shown elsewhere, it is indeed a welcome addition to our knowledge of the political philosophy of the early Imperial Guptas.³

The works of Altekar, described above, are indeed a landmark in the historiography of Gupta numismatics. For serious students and researchers of the Gupta coinage these are not only essential but shall remain a 'must' for decades to come.⁴

P.L. Gupta

P.L. Gupta is one of the most renowned numismatists of India. He has

1. Shivaramamurti, *JNSI*, XIII, ii, pp. 180 ff.; Agrawala, V.S., *JNSI*, XVI, i, pp. 97 ff.

2. Agrawala, *op. cit.*, p. 97.

3. For details vide my paper titled 'Political Ideology of the Early Imperial Guptas' In *Reappraising Gupta History for S.R. Goyal*, eds. B.Ch. Chhabra, P.K. Agrawala, Ashvini Agrawal and Shankar Goyal, pp. 220-21.

4. For Bayana hoard coins also see B.Ch. Chhabra, *Catalogue of the Gupta Gold Coins of the Bayana Hoard in the National Museum*, New Delhi, 1986.

written a number of research papers on Gupta numismatics though he has not come out with any monograph on the subject excepting a small work titled *Gupta Gold Coins in Bhārat Kalā Bhavan* written in collaboration with Sarojini Srivastava (Kashi, 1981). In 1969 he published a general work on Indian numismatics titled *Coins* from New Delhi. Its second edition appeared in 1979. In its Chapter VII (pp. 53-58) P. L. Gupta very briefly discusses coins and coin types of the Gupta emperors. But due to the nature of this work he gives only a survey of the subject. In 1970 he published his *Gupta Sāmrajya* in Hindi and in 1974 *The Imperial Guptas*, Vol. I, in English from Varanasi. In both of these works he deals with all the available sources at length. In his English work in the section on Gupta coins (pp. 69-112) he has given all the useful information on the subject.¹

Among the major papers on Gupta coins written by P.L. Gupta are included those on the coins of Chandragupta-Kumāradevī type, coins of Kācha (whom he rightly identifies with Bhasma of *ĀMMK*), Kramāditya (known from a single specimen), Prakāśāditya and Kumāragupta Kramāditya. He rightly distinguishes between Kumāragupta Kramāditya II and another king with the same name and *biruda*. P.L. Gupta has also tried to show that Purugupta did not issue any coins.

In 1992 also P.L. Gupta presented some suggestions on Gupta numismatics some of which are quite illuminating.² One only wishes that a numismatist of his calibre had written a detailed monograph on the Gupta coinage.

Jai Prakash Singh

A small monograph titled *History and Coinage of Skandagupta Kramāditya* was published by Jai Prakash Singh in 1976 from Varanasi

1. For P.L. Gupta's contribution to the study of Gupta gold coins see my paper 'P.L. Gupta and Gold Coins of the Guptas' in *P.L. Gupta Felicitation Volume*, ed. Sarojini Kulashreshtha, Delhi, 1995, pp. 271-78.

2. In *Political History in a Changing World*, eds. G.C. Pande, S.K. Gupta and Shankar Goyal, Jodhpur, 1992, pp. 177-92.

carrying a Foreword by Lallanji Gopal. It is divided into four chapters and five appendices. As the nomenclature of the book suggests, it is an addition to the literature on the coinage of the Gupta dynasty. Its Introductory chapter gives an outline of the reign of Kumāragupta I. Here Singh rejects the arguments of S.R. Goyal who thinks that the discovery of Kumāragupta I's coins from Samand and Ellichpur, and the similarity of his silver coins of Class III with the Traikūṭaka coins prove that he may have expanded his kingdom in the southward direction. Singh also does not subscribe to the view that Kumāragupta's Tiger-slayer type coins are indicative of his conquest of the territory beyond the Narmadā. According to him, the suggestion of the conquest of a part of the south-western Deccan by Kumāragupta on the basis of the discovery of his silver coins from there and his coins of the Tiger-slayer type is conjectural and fanciful. He observes that the coins may well have travelled to that region with merchants engaged in trade, and to think of a conquest of the region merely on the basis of these discoveries amounts to a misunderstanding of the numismatic evidence. "Had the coins been in active circulation in parts of Deccan, they must also have been found almost regularly from the area." (p. 8). On the suggestion of S.R. Goyal that "the horse-sacrifice, on the occasion of which the Aśvamedha coins of Kumāragupta I were issued, was performed to celebrate his Southern adventure," Singh points out that, "Aśvamedha sacrifice in ancient India was performed by a king not necessarily after the successful completion of a campaign. Therefore, the issue of Kumāragupta's Aśvamedha coins cannot be connected with his so-called conquest of the south-western Deccan, or for that matter, with any other proposed victorious campaign." (pp. 7-8).

The last chapter of Singh's work describes the coinage of Skandagupta who is known to have struck coins only in gold and silver. But his coinage is rather scanty both in terms of numbers as well as types as compared to those of his predecessors probably because of "the troubled nature of his kingship due to his involvement in almost constant

warfare with his enemies.' (p. 75). Singh's description of the gold coinage of Skandagupta is quite interesting though not fully convincing. He includes the Archer, the King-and-Queen, the Horseman, the Chhatra and the Garuda types among the five gold coin-types of Skandagupta. But only the Archer and the King-and-Queen types are definitely attributable to him as they bear his name either on the obverse or on the reverse. However, such is not the case with the Chhatra and the Horseman type coins, both known from a single specimen each, which reveal only the *biruda* of the issuer (Kramāditya). Similar is the case with the Garuda type repousse coins.

On the controversy of the nomenclature of the King-and-Queen type Singh observes that 'It is rather certain to suggest on the analogy of the King-and-Queen types of Chandragupta I, Chandragupta II and Kumāragupta I that this type of Skandagupta definitely belongs to this very class of Gupta coins.' (pp. 79-80). According to him, the coin was in all probability struck in the beginning of the king's reign, sometime after his coronation. (p. 80).

Skandagupta was the second and the last Gupta emperor to issue silver coins of both the Western and Madhyadeśa types in fairly large quantity. His Western silver coinage is divisible into three classes : the Garuda, the Bull and the Altar types. Singh maintains that these coins were struck throughout the reign of the king and do not necessarily belong only to its early part as is often suggested, though some of them indeed belong to the early years of his reign. The Madhyadeśa coinage of Skandagupta is of a uniform type. Its reverse bears a fan-tailed peacock. The coins of this class are larger in size than the Western Indian issues and are certainly much better in execution. Singh thinks that this type of Skandagupta were also issued practically throughout his reign.

S.R. Goyal

As is well-known, the history of the Gupta age is the special area of interest of S.R. Goyal who appeared on the scene of Gupta studies with his Doctoral dissertation *A History of the Imperial Guptas* published in

1967 from Allahabad. It was described by A.L. Basham as “the best analysis of the Gupta period which I have ever read.” His *Guptakālīna Abhilekha* (Meerut, 1984) is also regarded as the most significant work on Gupta epigraphs after Fleet’s *Corpus*. In the opening chapter of his *A History of the Imperial Guptas* (pp. 1-40), described by Eleanor Zelliot, as ‘imaginative’, ‘well-written’ and ‘a model of historiography’,¹ Goyal for the first time analysed the methods and techniques of studying various types of data, including numismatic evidence, for the reconstruction of Gupta history. While dealing with numismatic data of the period Goyal takes note of the work done by early numismatists (pp. 16-18), nature of numismatic evidence (pp. 18-19) and internal and external aspects of numismatic evidence. (pp. 19-23). He opines that the find-spots of a few coins, or even of a hoard, is by itself not always a reliable evidence on which to base conclusions regarding the location of the kingdom of the issuer. “But when coins of a particular class turn up year after year at an ancient site more certain conclusions can be drawn.”² Similarly, when an area yields hoard after hoard, containing the coins of early rulers, that area may be regarded as the early centre of the activities of that royal family.³ Unfortunately, earlier numismatists, and even a large number of recent historians, have paid sufficient attention neither to the composition nor to the provenance of the hoards of the Gupta gold coins and have not applied the age and area concept to the study of Gupta numismatics while a proper application of this principle is likely to yield very significant results.

Goyal also brought out a remarkable work on Gupta numismatics from Jodhpur in 1994, titled *An Introduction to Gupta Numismatics*. This work deals exhaustively with fundamental problems of Gupta numismatics. Divided into four chapters — Genral Features of the Gupta Coins, Gold Coin Types, Silver and Copper Coins of the Guptas and Gupta

1. In *Essays on Gupta Culture*, ed. Bardwell L. Smith, Delhi, 1983, p. 288.

2. *HIG*, p. 22.

3. *Ibid.*, pp. 22-23.

Impact on post-Gupta Coins—the work also contains an exhaustive Bibliography and numerous photographic illustrations and line-drawings. Goyal's work is somewhat unique because it seeks to make a comprehensive but compact study of almost all the aspects of Gupta coins in a scientific manner and includes the results of the latest discoveries and researches. On many numismatic problems it sheds new light and suggests new solutions.

On the attribution of Chandragupta-Kumāradevī coin-type Goyal has argued that these coins were issued either by Chandragupta I or by Samudragupta before he issued the Standard type coins. (pp. 41-46). According to him, the latter alternative seems to be the correct one. The Standard type coins were issued quite late in the reign of Samudragupta, for they bear long legends referring to his conquests indicating that they were not struck in the beginning of his reign; if Chandragupta I had issued the Chandragupta-Kumāradevī type coins it would be remarkable that Samudragupta did not immediately continue to issue gold coins. The assumption that Samudragupta issued Chandragupta-Kumāradevī type coins in the early period of his reign does not create such a difficulty.

The greatest hurdle in the suggestion that the Chandragupta-Kumāradevī type was issued by Samudragupta is the supposed absence of any clue to the identity of the commemorator.¹ To overcome this difficulty V.S. Agrawala argued that they were issued by the Lichchhavis who have been mentioned on the reverse of these coins,² while V.S. Pathak has suggested that the obverse legends *Chandraguptaḥ* and *Kumāradevī Śrī* and the device of the marriage-scene may together be taken as meaning *Chandraguptasya Kumāradevyāmutpannasya* while the reverse legend *Lichchhavayah* may be construed as *Lichchhavināmdauhitrasya*. Thus, legends and devices are subtle pointers to the identity of the commemorator, that is Samudragupta.³ Sohoni⁴ also opines that

1. Altekar, *Coinage*, pp. 28-29.

2. *JNSI*, XVII, i, p. 119.

3. *Ibid.*, XIX, ii, p. 141.

4. *Ibid.*, p. 153.

there is enough indication left by Samudragupta on Chandragupta-Kumāradevī type to indicate a reference to him, viz. names of his parents and of the community which had helped him. Goyal, however, feels that such a twist in the meaning of the legends is not altogether necessary. For, as pointed out by Jayaswal, no Hindu would ever think of celebrating the marriage of his father and mother.¹ It is, therefore, more reasonable to assume that Samudragupta issued these medals in the name of the Lichchhavis who were, after all, the co-rulers of the empire. It is quite likely that when his accession was challenged by his rival brothers, he issued these medals in order to publicize the fact that he, being a *dvyāmushyāyana* had a better title to rule over the amalgamated kingdom of the Guptas and the Lichchhavis which other princes, not connected with the Lichchhavis, did not have. It also explains why these coins are not found in Bihar, the region in which the Lichchhavi state was situated. For, if they were issued to publicize that he had a better title to rule over the amalgamated kingdom, it was only natural for him to circulate them in the region where the rebellious princes 'of equal birth' could hope to find some support. The Lichchhavi state must have been solidly behind him and, therefore, he did not feel the necessity of circulating such medallic pieces there.

On Śrī Vikrama coin of Samudragupta (pp. 103-06) Goyal has criticised the generally accepted opinion that the solitary coin giving the *biruda* 'Śrīvikrama' to Samudragupta found in the Bamnala hoard was issued during the reign of Chandragupta II, when the obverse die of the Standard type coins of Samudragupta was inadvertently used with the reverse die of the Archer type of Chandragupta II. It is argued that as no Gupta king used two titles, it cannot be assumed that Samudragupta adopted both the titles *Parākrama* and *Vikrama*. However, Goyal has pointed out that Skandagupta assumed the titles *Kramāditya* and *Vikramāditya* both. Further, according to him, metrology and other

1. Jayaswal, *Hist. Ind.*, p. 91, fn. 1.

numismatic considerations are in favour of regarding this coin as the issue of Samudragupta.

Another theory of Goyal, which is worth-noting here, is concerned with the coins of Prakāśāditya. (pp. 96-101). In this he has given arguments to prove that Prakāśāditya ruled just after Bhānugupta (known date 510 A.D.). For this he has taken the help of the *Āryamañjuśrīmūlakalpa* which refers to 'Pra' initialled, that is Prakāśāditya as the rebellious son of 'Bha' initialled, that is Bhānugupta.

Recently K.S. Shukla has tried to give a new turn to the problem of the identity of Prakāśāditya. He published another specimen of the Horseman-lion slayer type coin on which he has read the circular legend on the obv. between II and IV o'clock as *Bhānugupta* and between VI and XII as *vijitya vasudhām divam jayati*.¹ His reading was accepted and hailed by the Editor of the Journal, T.P. Verma.² However, Verma rightly pointed out that K.S. Shukla's suggestion that the coin shows that Bhānugupta was the ruling emperor and Prakāśāditya his viceroy cannot be accepted. If Shukla's reading is correct, then Prakāśāditya should be regarded as the title of Bhānugupta. P.L. Gupta and S.R. Goyal accept this obvious conclusion.³ But lately the testimony of the coin itself has come to be regarded as suspect. Firstly, the original coin seen by Shukla in 1975 with a goldsmith at Nawal (Dist. Unnao, U.P.) has since disappeared and its present whereabouts are not known to anybody. Secondly, the photograph of the coin published in the *JNSI* is very poor and serves no useful purpose. Thirdly, it appears that Shukla's reading of the letters *Bhā*, *nu* and *gu* is not correct. Jagannath Agrawal rules out absolutely the reading *Bhānugupta* on it.⁴ Fourthly, P.L. Gupta points out that in accordance with the norms of the circular legends on the Gupta coins, the coin should have the name of the king with or without his

1. *JNSI*, XLII, pp. 120-22.

2. *Ibid.*, Editorial Note.

3. Goyal, S.R., *Gupta Sāmrajya kā Itihāsa*, Jodhpur, 1987, p. 339, n. 1.

4. Quoted by Ashvini Agrawal, in *Numismatic Studies*, Vol. 2, p. 118, n. 32.

biruda just before the existing portion of the legend between V and VIII o'clock, and not between II and IV o'clock.¹

Thus, the so-called new evidence on Prakāśāditya has proved to be a non-starter and we are back to the square one. After rejecting the testimony of this coin Ashvini Agrawal has reverted to the old theory of the identification of Prakāśāditya with Purugupta, while Goyal finds no reason to modify his original thesis on the subject according to which Prakāśāditya should be placed between Bhānugupta (known date 510 A.D.) and Narasimhagupta II, the contemporary of Mihirakula.

B.N. Mukherjee

Among recent publications on Gupta numismatics B.N. Mukherjee's *Coins and Currency System in Gupta Bengal* (New Delhi, 1992) deserves special mention. In this work a dependable attempt has been made to deal with the Gupta coins found from Bengal as well as with the currency system of this region on the basis of these coins, inscriptions and other material.

The work is divided into six chapters. Chapter I gives a brief idea of the extent and traditional divisions of Bengal and Gupta history and coins, especially those found in Bengal. Ch. II summarises the present state of our knowledge about the monetary systems of Bengal upto c. 1200 A.D. It contains some very interesting suggestions. In Ch. III, dealing with the Gupta period, it is pointed out on the strength of epigraphic evidence that 15 Gupta *rūpakas* (silver coins) were equal to 1 *dīnāra* (gold coin) and the ratio in the value of gold and silver was 1:3.8. The find of an Aśvamedha type coin of Samudragupta and three Archer type gold pieces of Chandragupta II in a hoard with other antiquities found in an excavation at Mainamati in the Comilla district in a layer of eighth century A.D. may perhaps indicate the prevalence of the Imperial Gupta gold coins in Bengal for about a couple of centuries after the end of the Gupta

1. In *Political History in a Changing World*, eds. G.C. Pande, S.K. Gupta and Shankar Goyal, Jodhpur, 1992, pp. 182-83.

rule. No copper or lead coins of the Guptas have so far been reported from Bengal. These were apparently not in use in this region, their purpose being fulfilled by the uninscribed cast coins, Kushāṇa imitations and *cowries* for which archaeological and literary evidences are available. Ch. IV provides a description of the Gupta coin types reported from Bengal while Ch. V discusses in brief the minting technique and style including artistic aspects of the Gupta coins. In this connection Mukherjee makes a few interesting suggestions including that the so-called *Apratigha* type symbolizes Kumāragupta's "resolve to lead an ascetic's life even while remaining on the throne." The monograph ends with Ch. VI in which the conclusions drawn by the author are given.

B.N. Mukherjee's recent treatment of the history of the Imperial Guptas in his 'Commentary' (pp. 764-94) on Raychaudhuri's *Political History of Ancient India* (New Delhi, 1997) in over thirty pages, however, has not much to commend itself. Here it might be worthwhile to discuss his analysis at some length, for it is also concerned with the numismatic sources and has direct bearing on the political history of the Gupta period as well. Mukherjee has claimed that his 'Commentary', printed after the end of the text of Raychaudhuri, has taken into account the discoveries and researches during the last four decades. He also claims that he has clearly indicated the new trends in research and also the impact of economic factors on the course of political history. (p. xii). But to the great dismay of his readers in his treatment of the subject Mukherjee has failed to achieve these objectives. Unlike Raychaudhuri, whose work has been famous for its detailed references and the inclusion of the results of the recent-most researches, Mukherjee has not been able to utilize or even mention many of the significant works of the historians of the Gupta empire who wrote after the demise of Raychaudhuri in 1957 and before the publication of Mukherjee's 'Commentary' on his work. He has also been clearly unable to demonstrate the change from chronological reconstructions to socio-economic concerns in the study of the Gupta dynasty.

Among the most significant historians, whom Mukherjee should have critically discussed in his 'Commentary' is S.R. Goyal. As is shown by us elsewhere,¹ Goyal's Doctoral dissertation, *A History of the Imperial Guptas* (Allahabad, 1967) forms a watershed in the historiography of the Gupta dynasty, for it treated Gupta history with a holistic approach, discussed various kinds of evidence, including numismatic, afresh and suggested new solutions to many a major problems of the history of the period. Between 1967 and 1994 Goyal published as many as seven monographs on Gupta age.² But Mukherjee refers to none of Goyal's works; the only exception being latter's Doctoral dissertation which has been included in the general Bibliography of the 'Commentary' but without making it a part of the discussion in the reconstruction of the Gupta history.

Ellen M. Raven

The monograph titled *Gupta Gold Coins with a Garuḍa-Banner* (Groningen, Egbert Forsten, 1994) is the Doctoral dissertation of Ellen M. Raven presented and approved by the University of Leiden in 1991. It is indeed a stupendous and unique work dealing with the Garuḍa device found on the Gupta gold coins from all possible angles. It is only after going through her monumental work, which is in two volumes and covers

1. Cf. my work *The Image of Classical India : Its Changing Colours and Contours*, Jodhpur, 1997, pp. 37-91.

2. S. R. Goyal's works on Gupta history include :

1. *A History of the Imperial Guptas* (1967);
2. *Gupta evaṁ Samakālīna Rājavamśa* (1969);
3. *Guptakālīna Abhilekha* (1984);
4. *Samudragupta Parākramāṅka* (1987);
5. *Gupta Sāmrājya kā Itihāsa* (1987);
6. *Gupta aur Vākāṭaka Sāmrājyōṅ kā Yuga* (1988); and
7. *An Introduction to Gupta Numismatics* (1994).

Here mention may also be made of Goyal's Hindi monograph on the history of Lichchhavi period of Nepal which corresponded to the Gupta period of Indian history. (Goyal, S.R., *Prāchīna Nepālā kā Rājanītika aur Sāṃskṛtika Itihāsa*, Varanasi, 1973). Number 6 of this list is a thoroughly revised and updated version of No. 2.

cxxvii+490 pages and contains 113 tables, 59 plates, 2 maps and 139 line-drawing in 29 sheets, that one begins to wonder how did it happen that no one undertook a serious study of the Garuḍa-banner device earlier.

The work under discussion dwells upon only five gold coin types of the Guptas, for it is only on them that the Garuḍa-banner is depicted. Even the coins of Kācha and Ghaṭotkachagupta which bear Garuḍa-banner, have not been included in the study as the authoress could not examine them personally.

The first volume of the monograph is divided into five chapters. The first chapter explains the aims and scope of the book and reviews the work done by earlier scholars. The second chapter is devoted to the meaning of the Garuḍa-banner and to coin types featuring it. In chapter three the Garuḍa-banner design in its various forms has been presented and on that basis, applying 'the mint-idiom concept' a number of mints have been distinguished. The next chapter is devoted to the study of Garuḍa emblem in a variety of media—sculpture, terracotta, seals and coins of other dynasties of the pre-Gupta and Gupta periods. The whole discussion of these four chapters is summarised in chapter five.

The sixth chapter, the first one of volume two, re-classifies the coins of five Gupta gold types containing the Garuḍa-banner device afresh and in detail king-wise. The seventh chapter (second and the last of the volume two) discusses weights, gold content and size of the coins under discussion. It is followed by two Appendices.

Ellen has identified 14 basic images of Garuḍa and some 150 actual representations. She has also tried to find a pattern behind this variety and trace its chronological evolution. Though she is mainly concerned with gold coin types of the Guptas with Garuḍa-banner, she has also taken into consideration silver, copper and lead coins, including those of other dynasties on which this device occurs. The introduction of the concept of mint-idiom and the identification of five mints by her is highly interesting.

All in all, the work of Ellen is a masterpiece of numismatic research

and can only be described as 'monumental' and 'stupendous'. It is only such researches that can give a new direction to numismatic studies.

Some Miscellaneous Works

According to the generally accepted view, the history of the silver coinage of the Imperial Guptas started with Chandragupta II who issued them on the pattern of the silver coinage of the Western Kshatrapas. But in recent years evidence is accumulating to show that before Chandragupta II issued Śaka type silver money, his predecessors issued silver coins similar to their gold coins, though lighter in weight. Such coins of Chandragupta-Kumāradevī type and Lyrical and Standard types of Samudragupta have been published by various scholars. Whether these coins are genuine or fake is an interesting problem. According to S.R. Goyal, "now it appears better to assume that till the reign of Chandragupta II the Imperial Guptas issued lighter weight coins in silver following their gold prototypes." (*The Coinage of Ancient India*, Jodhpur, 1995, p. 435). On the other hand Ashvini Agrawal has very forcefully rejected all such coins as fakes. (*Oriental Numismatic Studies*, 1, New Delhi, 1996, p. 208). However, whether the silver coins mentioned above are genuine or not, the silver coins attributed to the first Gupta ruler by L.C. Gupta and S.J. Mangalam are certainly fakes.

Gupta and Mangalam have published a small monograph of 44 pages titled *Silver Coins of Śrī Gupta*. (Hyderabad, 1994). In this, they have published 106 silver pieces weighing between .7 and .83 gms which they have attributed to the first Gupta king. These coins contain on the obv. a crude portrait which Gupta and Mangalam have identified as that of Śrī Gupta because, according to them, the reverse legend on these coins reads Śrī Gupta. These coins are said to have been "picked up sporadically" from Hajipur-Mirjapur region of Bihar. The authors of the monograph claim that the discovery of these coins from Bihar indicates "the veracity of the tradition and the historicity of Śrī Gupta's political career around Magadha." It is also contended that Śrī Gupta issued these coins as they were required for circulation during his region.

But the attribution of these coins to the first ruler of the Gupta dynasty has been rightly rejected by Ashvini Agrawal. (*op.cit.*). He points out that portrait on these coins resemble the one found on Indo-Sassanian coins of the post-Gupta period to which these coins really belong. The reverse motif has a degenerate fire-altar and the legend on this side of the coins cannot be read as *Śrī Gupta* by any stretch of imagination. So far all the finds of similar coins have been reported from Punjab; Bihar has yielded none except the ones under discussion. It is also to be noted that the Gupta dynasty originated in Eastern U.P. and not in Magadha; S.R. Goyal has shown it almost conclusively.¹ Further, no dynasty of North India in the third and the first half of the fourth century A.D. issued silver coinage; they remained content with copper coins. It is, therefore, unrealistic to believe that a comparatively unknown ruler like Mahārāja Gupta issued a series in silver without any prototype, a series which was discontinued by his successors. In view of Ashvini Agrawal, therefore, the monograph deserves to be completely ignored by scholars. Such monographs tend to put young researchers and the study of numismatics both on the wrong track.

Among the books which dealt with miscellaneous aspects of Gupta numismatics, mention may also be made of S.K. Maity's *The Economic Life in Northern India in the Gupta Period* (Calcutta, 1957) and *Early Indian Coins and Currency System* (New Delhi, 1970) and some of his research papers which apply mathematical method to the study of ancient Indian numismatics, including Gupta numismatics. But he has laid too much stress on the principle that with the decline of the political fortunes of a dynasty the gold content of its coinage declined.² Maity has also

1. Goyal, S.R., *HIG*, pp. 41-52.

2. For a criticism of Maity's views on Chandragupta-Kumāradevī type see, S.R. Goyal, *op. cit.*, pp. 115-21; T.P. Verma, *JNSI*, XXXIII, i, p. 48; V.C. Pandey, *JNSI*, XXXVIII, pp. 25 ff. Also see T.P. Verma in *Reappraising Gupta History for S.R. Goyal*, eds. B.Ch. Chhabra, P.K. Agrawala, Ashvini Agrawal and Shankar Goyal, New Delhi, 1992, pp. 83-110. *Contra*, Ashvini Agrawal, *Rise and Fall of the Imperial Guptas*, Delhi, 1989, pp. 93-95; Ajay Mitra Shastri, in *S.R. Goyal : His Multidimensional Historiography*, eds. Jagannath Agrawal and Shankar Goyal, New Delhi, 1992, p. 5.

utilised literary sources of the period for the study of the coin data. He opines that the silver *kārshāpaṇa* of Nārada and Br̥haspati is not the same as *rūpaka* of inscriptions and that “the tables of Nārada and Br̥haspati hardly correspond to the actual weights and denominations of the Gupta coinage.”

In his *Aspects of Ancient Indian Technology* (Delhi, 1979) H.C. Bhardwaj has made a scientific study of the four Gupta gold coins from Rajghat excavations. (pp. 127-28). He has not confined his analysis to specific gravity but also uses chemical, metallographic and hardness determinations as well which yield significant information about fabrication technique. According to Bhardwaj, from the macro- and micro-structures of the Gupta gold coins it may be concluded that the material has been either hot worked or cold worked followed by annealing above the recrystallization temperature, as is clear from the fine equiaxed grains. From this he infers that these coins are die-struck and not cast. He also opines that the occurrence of a clay mould of Archer type of Chandragupta II at Rajghat might be a forger's apparatus. However, some of Bhardwaj's observations and statements need revision. For example, he proposes a date bracket c. 260-540 A.D. for the Gupta coins (p. 23), though in any case they cannot be placed earlier than 319-20 A.D.

Another work, which also deals with the Gupta coins is *A Comprehensive History of India* (A.D. 300-985) edited by R.C. Majumdar and K.K. Dasgupta. (New Delhi, 1982). Its Volume Three Part II includes a chapter on the 'Coinage' by A.S. Altekar and B.N. Mukherjee. In it the section on the coinage of the Imperial Guptas covers almost fifteen pages. (pp. 1369-1384). However, it has the disadvantage of being more a general introduction than an analytical assessment of the subject. In addition to this chapter Mukherjee has also written on the numismatic art of the period (c.A.D. 300-985) in the form of an Appendix. (pp.1415-1433).

Among other miscellaneous works dealing with some aspects of Gupta numismatics mention may be made of Swati Chakroborty's *Socio-*

Religious and Cultural Study of the Ancient Indian Coins (Delhi, 1986) in which she has discussed ancient Indian coins, including Gupta coins, from socio-religious and cultural points of view.

However, B.Ch. Chhabra's *Catalogue of the Gupta Gold Coins of the Bayana Hoard in the National Museum* (New Delhi, 1986), though quite excellent production-wise, does not suggest anything new.

The Coinage of Ancient India : A Numismatic, Archaeochemical and Metallurgical Study of Ancient Indian Coins by Satya Prakash and Rajendra Singh (New Delhi, 1986) also contains over forty pages on the coinage of the Gupta empire. But it hardly adds anything new to our knowledge of the subject.¹

Among the recent monographs dealing with some problems of the Gupta coinage mention may be made of *Numismatics Studies*, 5 Vols., (New Delhi, 1991, 1992, 1993, 1996 and 1997). These volumes contain some notable papers on the coinage of the Imperial Guptas from the pen of Ashvini Agrawal, Manmohan Kumar, S.V. Sohoni, etc.²

In his *Aspects of Ancient Indian Numismatics* (Delhi, 1996) Prashant Srivastava has discussed joint-issues of the Imperial Guptas (pp. 133-76), their commemorative medallions (pp. 249-310) and victory medals. (pp. 332-43). But at many places his views are highly fanciful.

Many scholars such as Jagannath Agrawal, S.V. Sohoni, K.K. Thaplyal, T.P. Verma, Nisar Ahmad, etc. have written high class research papers on Gupta coins. It is difficult here even to enumerate such a large number of papers; to discuss their contents is an impossibility.

1. However, the Bibliography of this work offers some help in sorting out the hundreds of long and short articles on Gupta coins.

2. Cf. Agrawal, Ashvini, 'Some More Coins of Rāmagupta', *Numismatic Studies*, 1, pp. 99-101; 'The Prakāśāditya Problem : A Reappraisal', *ibid.*, 2, pp. 107-18; 'King and Queen Coin-Type of Skandagupta', *ibid.*, 3, pp. 57-63; Manmohan Kumar, 'Gupta Coin Moulds : Forgery or Trade Compulsions?', *ibid.*, 2, pp. 119-22 and Sohoni, S.V., 'A Note on Revanta Coin Type of Chandragupta II Vikramāditya and Kumāragupta I, etc.', *ibid.*, 3, pp. 55-56. Ashvini Agrawal also gives a reasonable but brief survey of the Gupta coins in his *Rise and Fall of the Imperial Guptas*. (pp. 15-33).

Chapter Nine

The Coinage of the Vākātakas

Do the Vakataka Coins Exist? Views of Earlier Scholars

The Vākātakas were the greatest political power in the Deccan and Central India in the fourth-fifth centuries A.D. During their rule this region witnessed unprecedented economic prosperity. They had intimate relations with other contemporary powers such as the Imperial Guptas, the Nāgas, the Vishṇukundins, the Kadambas and the Śakas. Most of these powers issued their own coins. The gold, silver and copper coinages of the Imperial Guptas are quite well-known. The coins of the Ikshvākus, Vishṇukundins and Kadambas are also fairly well-known. But till recently no coins of the Vākātakas were known, nor do we find their coins mentioned in their inscriptions. It was, therefore, quite naturally assumed that the Vākātakas did not issue any coins and that they fulfilled their monetary needs by the coins of other contemporary powers.

Among early historians it was only K.P. Jayaswal who believed that the Vākātakas had issued their own coins.¹ He attributed three coins of north Indian fabric published by V.A. Smith in his *Coins of Ancient India : Catalogue of the Coins in the Indian Museum*, I, Calcutta² to Pravarasena I, Rudrasena I and Prthvīshena I respectively. However, his views were rightly rejected by A.S. Altekar³ and others as untenable.

1. Jayaswal, K.P., *History of India: A.D. 150 to 350*, Lahore, 1933, pp. 71-73, Pl. III.

2. Reprint, Delhi, 1972, Pls. XXII.15, XX.5 and XX.4.

3. Altekar, A.S., in *JNSI*, V, pp. 130-34.

That like any other contemporary state the Vākāṭaka kingdom also needed coins both in precious and non-precious metals can hardly be questioned. The coins in precious metals were needed for higher trade and land transactions. The inscriptions of the Vākāṭakas refer to such transactions. For example, the Indore plates of the twenty-third regnal year of Pravarasena II record the purchase and grant of half of a village (*vāṭaka*) by a merchant named Chandra. The Ramtek fragmentary stone-slab inscription mentions the purchase of a piece of land by Prabhāvatīguptā's son for the construction of a temple called Prabhāvatīsvāmin and the excavation of a tank named Sudarśana in her memory. Such transactions must have required costlier coins of silver or gold. What were these coins? There could actually have been no paucity of silver coins in the Vākāṭaka kingdom. It is well-known that punch-marked silver coins were in circulation till at least the early medieval period. They are referred by the name *purāṇa* in inscriptions and literary works of the second century A.D. and as *nīla-kāhāpaṇa* at least upto the fifth century A.D. The Sātavāhana silver coins might also have been in circulation in the Vākāṭaka territory as it was formerly under the Sātavāhanas. The Western Kshatrapa coins were also highly valued and hoards and stray finds of these coins have been reported from various sites included in the Vākāṭaka kingdom. Further, the Gupta gold and silver issues must have been available in abundance, and the Traikūṭaka silver coins were also in use during this period. All these coins must have been in circulation during the Vākāṭaka period and freely used by the people and the kings.

In view of the availability of these coins issued by earlier or contemporary dynasties, the Vākāṭakas probably did not feel the necessity of issuing coins in gold and silver. But did they not issue coins even in cheap metals? It is usually believed that they did not do so and the people of their kingdom depended for their day-to-day ordinary transactions also on the coins of non-precious metals of the earlier and contemporary dynasties which they probably supplemented by the *cowrie*-currency as

was done even in the Gupta empire.

A.M. Shastri

However, in recent years the situation in this regard has somewhat changed, for A.M. Shastri, a historian, epigraphist and numismatist of repute,¹ has now published² some small coins in base metal, with copper predominating, and has attributed them to the Vākātakas. These coins have reportedly been found in the Wardha region which was undoubtedly included in the kingdom of the main or the Nandivardhana-Pravarapura branch of the dynasty and especially from Paunar which is believed to represent the site of their later capital, Pravarapura. All these coins are minute in size, irregular in shape and light in weight. Shastri has indeed rendered a great service to the Vākāṭaka studies by publishing these coins.

As the main source of information for these coins is the aforesaid article of A.M. Shastri, we are reproducing with due acknowledgement his description of these coins and his observations on the problem of their attribution in brief.

I. Coin of *Prthivīsheṇa*

Copper; circular with a small portion along the top edge broken away and missing; diam. 0.9 cm; wt. 0.632 gm.

1. A.M. Shastri is indeed the greatest living authority on Vākāṭaka history, epigraphy and coinage. He has shed fresh light on many a baffling problems of the Vākāṭaka period. To mention only a few of his conclusions : The original Vākāṭaka territory lay in the Vindhyan region wherefrom they immigrated into Vidarbha in about 300 A.D.; Kāñchanakā (mod. Nachna) was their first dynastic capital; Dāmodarasena and Pravarasena II were two distinct kings who ruled one after another; Narendrasena's accession was disputed and towards the close of his reign he was deprived of his kingdom by his Vatsagulma cousins; his queen Ajjhitabhāṭṭārikā was most likely a Kadamba princess; Prthivīsheṇa II recovered the lost territory and kept the Nalas at bay; Sarvasena II of the Vatsagulma branch interfered in the internal affairs of the Kadambas of Vanavāsī; Devasena, his son, extended his kingdom upto Bidar region and tried to de-establish the Pravarapura branch; Daṇḍin's *Daśakumāracharita* has no bearing on the end of the Vākātakas; etc.

2. Shastri, A.M., (ed.) *The Age of the Vākātakas*, New Delhi, 1992, pp. 285-94; also see his *Vākātakas : Sources and History*, New Delhi, 1997, pp. 136-46.

Obverse : Legend in bold characters in the box-headed variety of Brāhmī beginning at 8 o'clock (*Śrī-Ma*) *hārarāja-Prthivī* along the circular edge.

Reverse : In the centre, a device consisting of a circle with a smaller circle attached to its left portion; the whole within a beaded (or dotted) circle a part whereof is visible. Incuse marks visible along the edge.

According to Shastri, the obverse legend obviously gives the name of the issuer preceded by the honorific *Śrī* and the regal title *Mahārāja*. The characters are exactly similar to those employed in vast majority of Vākāṭaka inscriptions. The concluding part of the legend giving the second component of the issuer's name has not been accommodated in the die, while the upper parts of the letters including the medial signs attached to the top of some of the letters have remained off the flan as even with the exclusion of the second part of the name the metallic blank was too small as compared to the die. In fact, the size of the letters was quite large as is clear from the alignment and size of the accommodated letters which are fairly large in comparison with the rather minute size of the coin. As the concluding part of the legend is not accommodated in the legend, it cannot be ascertained if the legend terminated merely with the name or ended in the genitive singular as was the case with the Sātavāhana and Kshatrapa coins with which the Vākāṭakas may be justly supposed to have been familiar. However, the legend should leave no doubt that the coin in question was issued by a monarch whose name began with 'Prthivī'. During the period and in the area in question the only royal name commencing with this word was Prthivīsheṇa which is known to have been borne by a couple of Vākāṭaka kings of the Nandivardhana-Pravarapura line, viz., (i) Prthivīsheṇa I, son and successor of Rudrasena I, and (ii) Prthivīsheṇa II, son and successor of Narendrasena and the last known member of this branch of the family. The employment of box-headed characters as well as the title *Mahārāja*, which was assumed by practically all the Vākāṭaka monarchs, and the provenance (Paunar)

strengthen this identification. However, the internal evidence of the coin does not permit us to determine as to which of these two Prthivīsheṇas was responsible for issuing it.

II. Coins of Narendrasena

A. Copper; almost circular; diam. 1 cm; wt. 0.360 gm.

Obverse : Legend in similar characters which can be read as *rendra*.

Reverse : The word Śrī along with some indistinct letter before it.

If the reading *rendra* is accepted, Shastri believes, the first missing letter preceding it, with which the name could have begun, may be restored as *Na* with the result that the first component of the name of the issuer of this coin could be assumed to have been Narendra, the full name possibly being Narendrasena. And as no chief of this region other than Narendrasena Vākāṭaka, whose name contained the *aksharas re* and *ndra* is known today, we may be sure of this attribution. However, he cautions that in view of the fragmentary character of the legend not giving even the first part of the king's name in full, this suggestion is purely tentative.

B. Copper; almost square; 0.8 x 0.6 cm; wt. 0.275 gm.

Obverse : Bold box-headed Brāhmī letter *Na* within a partially accommodated border of dots, leaving no doubt that the legend contained nothing else. Incuse marks visible along the edge on left and at the bottom.

Reverse : Partially accommodated conch-shell (only upper part).

According to Shastri, this coin may also be ascribed to the Vākāṭaka king Narendrasen for no other chief of the Vākāṭaka dynasty or, for that matter of any other ruling family of the region in question with his name beginning with *Na*, is known so far.

Regarding the attribution of the above coins we are on fairly dependable grounds. However, the same cannot be said about a few other coins of similar fabric and bearing similar devices. Shastri describes them

as under :

III. Coins with the Legend *Jaya* (2 coins)

Copper ; round; diam. 1 cm; wt. (A) 0.249 and (B) 0.363 gm.

Obverse : Legend consisting of two bold letters in the box-headed variety of Brāhmī; on coin A the legend is clearly readable as *Jaya*; on coin B also, the first *akshara* is undoubtedly *Ja*, while the second letter looks like *ra* but appears to be intended for *ya*. The identity of the legend on the two coins is also suggested by the identity of reverse device.

Reverse : Boldly executed retrograde *svastika* within a beaded border. On coin B, we have a dot in each arm of the *svastika*.

IV. Coins with the Legend *Vṛddhi*

We have three coins with this legend. But they are of different weights, sizes and types and may be described in the ascending order of weights and sizes.

A. Irregular in shape; 0.9 x 0.8 cm; wt. 0.210 gm.

Obverse : Boldly executed legend *Vṛddhi* in the box-headed characters of Brāhmī within a circular beaded border, showing that though the piece is of a non-descript shape, it was intended to be circular.

Reverse : Same as on the coin of Pṛthivīsheṇa.

The reverse device clearly links this coin with that of the Vākāṭaka King Pṛthivīsheṇa and thereby suggests its Vākāṭaka affiliation.

B. Copper; round; diam. 0.23 cm; wt. 6.800 gms.

Obverse : Very boldly inscribed legend as on A, in the centre.

Reverse : Vividly depicted figure of running lion to right with gaping mouth and curled tail.

This lion is obviously the prototype of that which is met with on the so-called Vishṇukunḍin coins.

C. Copper; round; diam. 0.27 cm; wt. 8.100 gm.

Obverse : Legend as above.

Reverse : Crudely executed figure of humped bull walking to right.

V. Coin with the Legend *Vṛddhaḥ*

Copper : irregular in shape; 0.7 cm; wt. 0.331 gm.

Obverse : Boldly executed legend *Vṛddhaḥ* in box-headed characters.

Reverse : Same as on *Prthivīsheṇa*'s coin.

As in the case of IV.A above, the reverse device of this coin connects it with the definitely attributable coin of *Prthivīsheṇa*.

According to Shastri, the fabric, use of box-headed characters and the provenance leave no doubt that these coins belong to the same region and period as represented by the coins of the *Vākātakas* described above. Reference may also be made to the similarity of the reverse device on a few coins bearing the legends *Vṛddhi* and *Vṛddhaḥ* with that on the only known coin of *Vākātika* king *Prthivīsheṇa* which closely links these coins with the *Vākātakas*. However, the names *Jaya*, *Vṛddhi* and *Vṛddhaḥ* met with on these coins are not known from any other source.

Shastri has also drawn attention of scholars to some other uniface coins closely allied with the *Vākātika* coins in respect of fabric and devices, but without legends. These devices include that of *Prthivīsheṇa*'s reverse, a conch-shell, *śrīvatsa* within a beaded border, spoked wheel, bull, (*Nandin*) standing to right before a sacrificial post (*yūpa*), *Nandin* seated facing right or left and the like. In view of the extremely fragmentary character of their legends or their total absence it is not possible to determine the identity of their issuers. He suggests that they were possibly struck by or at the behest of the *Vākātakas*.

It must be remembered, however, that even if the *Vākātakas* had issued their own coins in cheap metals, earlier and contemporary costly metal coins also must have been in use for costlier transactions. Moreover, the coins of other dynasties in cheaper metals must also have been in

circulation because the Vākātakas obviously did not issue a copious currency in cheaper metals either.¹

A.H. Siddiqui

After A.M. Shastri A.H. Siddiqui has also claimed to have acquired three coins for his private collection on which, according to him, the name Vākāṭaka is clearly inscribed. (*Oriental Numismatic Studies*, Vol. I, ed. Devendra Handa, New Delhi, 1996, pp. 99-105). These coins of copper / bronze, are rectangular in shape, 6.660, 4.889 and 6.573 gms respectively in weight and 1.9x2.1 cm, 1.8x2.1 cm and 1.6x1.7 cm in size. These contain, according to the reading of Siddiqui, the legend *Vākāṭaka Sarva* (*Sena*) both on the obv. and rev., though it is not always fully legible. The coins carry bull, triangle-headed standard, or one or two *svastikas* on the obv. and double-lined *triratna* on the reverse. These coins were found in Nanded district and have been attributed by Siddiqui to Sarvasena Vākāṭaka of the Vatsagulma branch.

Siddiqui has also published square / rectangular coins with similar motifs of humped-bull / *triratna* belonging to one (*Ra*)jño *Vigasena*. Similar coins were also published by Prashant Kulkarni who read the name on them as *Vigasa* or *Vigra*. (*Oriental Numismatic Society Newsletter*, No. 113). Siddiqui has ascribed these coins also to the Vākātakas, though the legend *Vākāṭaka* is missing on them. Siddiqui also recalls that these coins have close affinity with the coins of Ramno / Rajño Sebaka earlier published and discussed by Mirashi, Altekar, P.L. Gupta and Siddiqui himself. On the basis of the evidence of these coins, Sebaka is regarded as a near contemporary of king Sātavāhana, who cannot be placed later than the first century A.D. Siddiqui also subscribed to this view. But in that case Siddiqui's ascription of the aforesaid coins to Vākāṭaka Sarvasena becomes a chronological impossibility. As observed

1. For recent studies in Vākāṭaka history see B.N. Mukherjee's 'Commentary' on the *Political History of Ancient India* by H.C. Raychaudhuri, New Delhi, 1997, pp. 769-77; also my *The Image of Classical India*, Jodhpur, 1997, pp. 177-92.

by Devendra Handa, the Editor of the Journal, “The coins attributed to the Vākātakas in this paper (of Siddiqui) do not admit of averred readings and differ in fabric, devices and palaeography from the Vākāṭaka coins published by Professor Shastri. ...The author has recalled Sebaka coins for similarities but seems to have missed the palaeographic evidence to consider the coins under consideration as the Vākāṭaka coins.” (*Oriental Numismatic Studies*, I, p. 105, Editorial Note).

Chapter Ten

Coins of the North Indian Dynasties of the Post-Gupta Period (550-750 A.D.)

North Indian Coins in the Post-Gupta Century (upto c. 650 A.D.)

In the post-Gupta centuries, specially from c. 600 A.D., usually described as the Early Medieval Period of Indian history, the progress in the numismatic tradition of India became sluggish. Coins struck after the downfall of the Guptas, irrespective of the dynasty to which they belong or the regions from which they come, are marked by mediocrity and lack in originality and artistic merit. They are often slavishly copied from Kushāṇa, Gupta and Sassanian prototypes. Further, no particular type is characteristic of any particular dynasty or locality. In the words of Bela Lahiri, “coinages of the post-Gupta pre-Muhammadan period were conspicuously marked by stereo-typed features and signs of ‘Medievalism’ such as lack of originality, monotony of types, and unartistic workmanship.”¹ Here we shall confine ourselves to the North Indian coinage of the period extending upto c. 750 A.D. on which the impact of the Gupta numismatic traditions is relatively more marked.²

Gold Coins of Eastern India : A.S. Altekar

According to Altekar (*Coinage*, Appendix), gold coins struck in Eastern India, specially in Bengal, after the Gupta age were highly influenced by

1. *JNSI*, XLII, p. 77; also see her article on Gupta type coins of early medieval period in *JNSI*, XLIV, pp. 155-70.

2. For the historiography of the post-Gupta centuries see my *The Image of Classical India*, Jodhpur, 1997, pp. 113-74.

the Imperial Gupta coinage, at least in fabric, if not always in type.¹ One Vīrasena Kramāditya, who was ruling somewhere in the Varanasi area, and three Bengal kings — Samāchāradeva Narendravinīta, Śāsāṅka and Jayanāga Prakāṇḍayaśas — struck some gold or debased gold pieces with the well-known rev. device of Gupta gold coins, viz. the 'seated goddess' (Lakshmī). However, they tried to maintain their individuality by using some unusual devices on the obverse. Thus, Vīrasena and Harsha's rival Śāsāṅka respectively introduced the bull and the figure of Śiva reclining on recumbent Nandī on the obv. of their coins while Samāchāradeva Narendravinīta issued the Rājāḷilā type of the gold coins alongwith his Archer type.

Only two gold coins of Vīrasena are known. They weigh 162.5 and 169 grains and thus in weight standard do not show any influence of the Gupta gold coins.

Samāchāradeva is one of the triad of the kings—Gopachandra, Dharmāditya and Samāchāradeva—known from inscriptions. He himself is known from a Nalanda seal and Ghugrahatti grant. Earlier he was identified with Śāsāṅka. He issued Archer type and Rājāḷilā type coins with respectively Lakshmī and Sarasvatī on the reverse. His coins weigh about 148 or 149 grains.

Jayanāga Prakāṇḍayaśas issued gold-plated coins weighing from 132 to 139 grains. He is most likely identical with king Jayanāga of the Vappaghoshavata grant but different from Jayagupta of the copper coins. He was probably a predecessor of Śāsāṅka. He issued Chakradhvaja type of coins with Lakshmī on the reverse.

Śāsāṅka issued gold coins in suvarṇa standard and half śatamāna weight-system. On his coins sometimes *jaya* is written as *yaja*.

Then we have imitations of the Gupta coins in debased gold from Eastern Bengal. They bear on the obv. the figure of the 'standing king', and on the rev. that of a 'seated goddess' who is depicted as two-handed on some coins and as eight-handed on others. They are generally crude

1. Altekar, *Coinage*, pp. 327-28.

and their legends are fragmentary. They follow the 50 rattī standard of a particular series of Śaśāṅka's gold coins and even bear, like them, the border of thick dots, which fact shows that they succeeded the issues of Śaśāṅka. The uniformity of their type and fabric, on the other hand, indicates that they were the issues of the members of a single house. The two issuers of this unique series of coins are Sudhanyāditya and Prthuvīrya.

B.N. Mukherjee

B.N. Mukherjee is one of those scholars who have done significant work on the coins discovered in Bengal. In 1993 he brought out from Delhi *Coins and Currency System of Post-Gupta Bengal (c.A.D. 550-700)*. It is an enlarged version of his *Post-Gupta Coinage of Bengal* published in 1989 by the Coin Study Circle, Calcutta. The work is divided into six chapters and an appendix. Chapter One is in the form of Introduction in which all the four major divisions of Bengal, including Bangladesh, are defined and described. (pp.1-3). Chapter Two deals with the coins and currency system of Vaṅga and Gauḍa (pp.4-16) while Chapter Three discusses the coins of Samatāṭa. (pp.17-35). The themes of Chapter Four (pp.36-38) are the technique of manufacturing and the artistic merit of the coins. Chapter Five furnishes a catalogue of the relevant coin types found in Bengal, while the monetary system of the region (upto c.1200 A.D.) is the subject-matter of Chapter Six. This is followed by an appendix dealing with a coin of Bālamṛgāṅka. In this work Mukherjee has discussed in detail the coins of post-Gupta Bengal using not only numismatic data scattered in various museums and private collections but also literary sources, foreign accounts and archaeological materials. This work has already proved to be a great help to scholars and laymen alike.

Silver Coins of the Maukharis and Other Post-Gupta Indigenous Kings : A.S. Altekar, T.G. Aravamuthan, B.P. Sinha, D.Devahuti and Some Others

Different series of Gupta-type silver coins of the 20 rattī Indian drachm

standard were also issued by rulers of various royal families. They bear on the obv. 'king's head' to right or left, and a date and on the rev. a 'fan-tailed peacock' to left or right alongwith a legend of set pattern reading *Vijitāvaniravanipati* (king's name) *divam jayati* in the style of the Gupta coins.

King Bhīmarāja (or Bhimasena) is known to us from a single silver coin having bust of the king on the obv. and fan-tailed peacock on the reverse. The coin weighs 34.2 grains.

Smith published a silver coin of king named Harikānta (?). It was probably obtained with a coin of Śarvavarman Maukhari. It has on the obverse the head of the king to right and fan-tailed peacock on the reverse.

The Trident type of Kumāragupta I, known by a single specimen, was obviously copied by the Valabhī chiefs who issued extensive silver coins with the king's head on the obverse and a *triśūla* with a fragmentary legend which seems to include the word *bhaṭṭarakasa* on the reverse.

The Bull type coins of Skandagupta were imitated by one Kṛṣṇarāja, probably of the Rāshtrakūṭa lineage, who issued a large number of silver coins with the king's head on the obverse and bull on the reverse.

The Peacock type Gupta silver coins were also closely copied by Īśānavarman, Śarvavarman and Avantivarman of the Maukhari dyansty, as well as by Pratāpaśīla (Prabhākaravardhana?) and Śīlāditya (Harshavardhana?) of the Pushyabhūti (?) family. Silver coins of the Maukhari king Īśānavarman,, Śarvavarman and Avantivarman have been found in Uttar Pradesh. They corroborate the testimony of epigraphy and confirm that Īśānavarman, Śarvavarman and Avantivarman were independent sovereign rulers. On the coins of Īśānavarman his head faces left as opposed to the head on the silver coins of the Guptas. It may suggest the nature of their relationship with the Guptas. The dates on these coins are not clear and, therefore, have given rise to diverse readings and numerous speculations about the era or the eras to which they belong. Aravamuthan, who has discussed the subject very thoroughly, concluded

that we have “very little justification for building elaborate arguments on the basis of these readings. They are so varied and fanciful that little reliance can be placed on them.”¹ Sinha agrees with him.²

Till recently silver coins of Śaśāṅka were not known. But in 1979 P.K. Bhattacharya published³ two silver coins found by him in West Bengal. They are round in shape, crudely executed, contain some percentage of gold, weigh respectively 9.06 gm and 8.39 gm and are of the size 20.5 mm and 20 mm. They contain on the obv. the figure of nimbate Śiva kneeling to front on Nandī while the rev. shows nimbate Lakshmī seated on lotus and fragments of the legend Śrī Śaśāṅka. However, according to B.N. Mukherjee, these are 7th-8th century imitations of the gold coins of Śaśāṅka.

Copper Coins of Indigenous Kings

King Jayagupta is known from a single copper coin which has bust of the king on the obverse and Garuḍa and the legend *Jayagupta* on the reverse. King Harigupta is also known from his copper coins only unless he is identical with the Harigupta of the *Kuvalayamālā*. His name suggests Gupta affiliation and one of his types, the Chhatra one, is a close imitation of the same type of the Guptas. Further, it has the figure of Garuḍa on the obverse. Harigupta also struck another type of copper coins with a *kalaśa* on the obverse and a two-line legend, *Mahārāja Hariguptasya*, in the characters of the sixth century, on the reverse. S.R. Goyal believes that he ruled in Pañchāla region in the age of Toramāṇa, for he seems to be identical with Harigupta, the Jaina preceptor of Toramāṇa mentioned in the *Kuvalayamālā*. This text explicitly says that Harigupta, the preceptor of Tormāṇa, belonged to the Gupta lineage. The role of Harigupta as described in the *Kuvalayamālā* reminds S.R. Goyal of the similar role of the Kshatriya prince Kālaka who became a Jaina monk and brought the Śakas to invade Gardabhilla.⁴

1. *The Kāverī, the Maukharis and the Sangam Age*, p. 100.

2. Sinha, *DKM*, p. 433.

3. *JRAS*, 1979, No.2, pp. 153-55.

4. Goyal, S.R., *HIG*, pp. 338-41.

Hūṇa Coins : A. Cunningham, A.S. Altekar, A.K. Narain and Upendra Thakur

Hūṇas had no numismatic tradition of their own, so they had to take recourse to imitating or adopting the coinage of the foreign or Indian powers.¹ Altekar examined some Hūṇa coins of the Prince of Wales Museum, Bombay, and came to the right conclusion that Toramāṇa borrowed Sassanian type in Afghanistan, Gupta type in India and Kushāṇa type in Kashmir. The silver coins of Toramāṇa, not known in large numbers, may be distinguished into three classes:

(i) The Horseman type with horseman to r., discus and *śaṅkha* or vase (?) in the field, Hephthalite symbol with marginal legend *Sāhi Jabula* or *Sāhi Janabula* on the obv. and the usual fire-altar and supporters, rudely executed, on the reverse.

(ii) The Sassanian Bust type with bust of king to r. and marginal legend in Gupta characters, *Sāhi Jabuvlaḥ* or *Jabula*, on the obv. and traces of fire-altar and its attendants on reverse. One of the silver coins in the Banaras Hindu University collection, attributed to the Hūṇas, bears the bust and legend *Jayatu Yabu(pu)sara*, the rev. device showing traces of altar in the centre with attendants on either side.

(iii) Small hemidrachms exactly like those of the Fan-tailed peacock type of Kumāragupta I, Skandagupta, Bhīmasena and Īśānavarman with the difference that the king's head is turned to the left. Two such specimens bear the date 52 while a third, described by Hoey, bears the legend *Vajatāvanaravana pata Śrī Toramāṇa*, i.e. *Vijitāvaniravanipati Śrī Toramāṇa*.

Copper coins of Toramāṇa present many difficulties. Some of the coins bearing the name of Toramāṇa that are found in Kashmir are not attributed by many scholars to the father of Mihirakula. These coins

1. For Hūṇa coins see Cunningham, A., *Coins of Medieval India*; Narain, A.K., *JNSI*, XXIV, pp. 41-44; Choudhary, R.K., *ibid.*, pp. 172-78; Thakur, Upendra, *ibid.*, XXIX, pp. 9-21; also see Sharma, G.B. and Kumar, Manmohan, *Coins, Seals and Sealings from Sanghol*, Chandigarh, 1986, pp. 29-37.

weigh approximately 100 to 120 grains and are similar to Kidāra Kushāṇa coins having on the obv. standing king and the legend *Śrī Toramāṇa* in Brāhmī of the fifth-sixth century A.D. and on the reverse a crude imitation of goddess Ardoksho with the vertical legend *Kidāra*.

The Sassanian Bust type of copper coins have on the obv. bust of the king facing r. with a solar symbol in the upper field and on the rev. the legend *Tora* in bold characters. Some years ago A.K. Narain published six such coins found from Sanghol including one restruck coin of Toramāṇa and one Toramāṇa coin overstruck by Mihirakula.

As compared to the silver coins of Toramāṇa, the silver coins of Mihirakula are exceedingly rare and are of the Sassanian Bust type only with two varieties :

Var. A : On the obv. in front of bust an umbrella, and a bull to left with the legend *Jayatu Mihirakula* and on the rev. the remains of fire-altar, its attendants nearly obliterated.

Var. B. : Smaller than Var. A in size showing on the obv. only bull in front of bust, sometimes a trident, with the legend *Jayatu Vṛshadhvaṇa* ('may the bull-standard be victorious'), the rev. being the same as on Var. A.

The copper coins of Mihirakula fall into three distinct classes :

(i) Large copper coins of Horseman type which portray the figure of the king on horseback with the legend *Mihirakula* on the obv. and the goddess Lakshmī on the reverse. (ii) Standing king type middle-sized coins which are exact copies of the Kushāṇa prototype. The obverse presents the king standing with a spear in left hand, right hand held downwards over a small altar with the legend *Sāhī Mihiragula* or simply *Mihirakula* and the rev. has seated Lakshmī with cornucopiae. (iii) Sassanian Bust type small copper coins which have on the obv. king's head with the legend *Śrī Mihirakula* and a humped bull with the legend *Jayatu Vṛsha* ('may the bull be victorious'). Three coins of this type were published by A.K. Narain alongwith the above-mentioned Toramāṇa coins.¹

1. *JNSI*, XXIV, pp. 42-44. For the coins of Vidisagupta and other Hūṇa rulers, see Devendra Handa, *JNSI*, XLVIII, pp. 49-53.

Silver Coins of Pratāpaśīla and Śīlāditya : A. Cunningham, A. F. Hoernle, R. Burn, D. Devahuti and Others

The history of the study of coins of Harsha started in 1894 when in his *Coins of Medieval India* Alexander Cunningham illustrated a coin showing a horseman with the legend *Harshadeva* on the obverse and the figure of a goddess seated on a throne on the reverse. Cunningham ascribed it to king Harshadeva of Kashmir. But Hoernle suggested that it belonged to king Harsha of Kanauj.¹ However, Hoernle's suggestion was rejected by Richard Burn as not quite satisfactory.²

Meanwhile, in 1904, an earthen pot, containing 522 silver coins, was found in the village of Bhitaura, district Faizabad, U.P.³ As many as 248 silver coins of this hoard bear the legend *Śrī Śāladata* (Śrī Śīlāditya), while nine belong to *Śrī Pratapaśāla* (Śrī Pratāpaśīla). Of the remaining pieces, thirty-two silver coins are of the Maukhari kings, one of the king named Harśa (not Harsha), three are Varāha drammas and one is of uncertain type. Names of kings, and in many cases dates also, have disappeared from the rest of coins.

518 silver coins of this hoard are of the Gupta silver type; that is, they bear a large head with a date on one side, and a peacock on the other, with a long inscription. On seven coins the head faces right, as on the Gupta coins, while on the others, which include all the coins of Śīlāditya and Pratāpaśīla, it faces left. The inscriptions round the peacock in every case but one read *Vijitāniravanipatiśrī* (name) *devo jayati*. The vowels are marked only in a few cases.⁴

Burn⁵ identified kings Pratāpaśīla and Śīlāditya of these coins respectively with Prabhākaravardhana and Harsha Śīlāditya of the

1. *JRAS*, 1903, p. 547.

2. *Ibid.*, 1906, p. 847.

3. It also contained one gold coin of a later Scythian type and 8 copper coins of Pratāpāditya II of Kashmir.

4. Devahuti, *Harsha : A Political Study*, p. 273.

5. *JRAS*, 1906, p. 843.

Pushyabhūti dynasty while Hoernle¹ attributed all these coins to a king of Kashmir possessing both these names, known to us from Kalhaṇa.² Speaking of Pravarasena of Kashmir, Kalhaṇa states that he replaced Pratāpaśīla, also called Śīlāditya, the son of Vikramāditya, who had been dethroned by enemies in the kingdom of his father. This Vikramāditya is identified by Hoernle with king Yaśodharman of Malwa who is credited in his Mandasor inscription with extensive conquests as far as the Himalayas,³ and Śīlāditya with his supposed son of this name. According to the reckoning of Hoernle, Pratāpaśīla-Śīlāditya's rule lasted 'from about 580 to 608, or 612, that is from the death of Vikramāditya (Yaśodharman) in 580 to the great victory, or to the coronation, of Harshavardhana'.

Before we proceed further, let us describe the features of these coins in greater detail.

Pratāpaśīla

The crescent on the king's head is about the centre of the top (instead of at the crown as it is usually in the Maukhari coins), and each horn terminates in a knob. The date symbols are 'sa' and for 10 and 1 or for 11. The vowels are omitted in the spelling of his name. On the reverse the peacock's head is to the left on all the nine coins.

Śīlāditya

The name is usually written as Śrī Śaladata, vowels being only rarely given. On a few coins the final letters are more clearly -tya. The crescent on the head has various forms and positions. The dates on many of the coins are varied and present considerable difficulty, as the symbols differ from the ordinary forms. The date symbols are 'sa' and for 30+1 and 30+3. However, most of the dates as read by Burn are accompanied by a query mark, as he finds the readings doubtful.

1. *Ibid.*, 1909, pp. 446 ff.

2. *Rājatarāṅginī*, III. 330.

3. Goyal, S.R., *Guptakālīna Abhilekha*, p. 366 f.

While doubting the ascription of these coins respectively to Prabhākaravardhana and Harsha, Hoernle argued that before attributing the Śīlāditya coins to Harsha it must be proved that he had assumed this title officially. He states that as neither Bāṇa nor other Indian sources mention this *biruda* of Harsha, and as Yuan Chwang is our sole authority on this point, it appears that Harsha was known by this title only in the 'Buddhist monkish communities'. However, as pointed out by Devahuti, the Chinese sources inform us that king Harsha adopted the title Śīlāditya on his accession to the throne of Kanauj. He is referred to as Śīlāditya also by the diplomatic envoys who had been deputed by the Chinese emperor to carry out official business. These envoys at least, may not be expected to have obtained their information only from the Indian 'Buddhist monkish communities'. Further, though the indigenous sources do not mention Harsha as Śīlāditya they do honour Prabhākaravardhana with the *biruda* 'Pratāpaśīla', which shows that the Chinese evidence regarding Harsha's title is quite reliable. According to Devahuti, Harsha records his father's *biruda* in his inscriptions¹ which makes it reasonable to assume that he used his own also for official purposes. He, therefore, might have issued his coins with the *biruda* Śīlāditya.

The site of the hoard containing so many coins of Śīlāditya, and the fact that Pratāpaśīla's and Śīlāditya's coins have been found together, also support the identification of the two kings with Prabhākaravardhana and Harsha. Though several Śīlādityas ruled at Valabhī in the sixth, seventh, and eighth centuries, the coins of the Bhitaura hoard may be satisfactorily ascribed to only Harsha Śīlāditya of the Pushyabhūti dynasty which ruled over Bhitaura.

The dates on these coins cause some difficulty. Each date on the coins of king Pratāpaśīla consists of three symbols. The topmost is the letter 'sa' and one would ordinarily expect this to represent the hundreds

1. Devahuti, *op. cit.*, p. 273. But the *biruda* Pratāpaśīla for Prabhākara is not found in the records of Harsha. Actually it is Bāṇa who mentions it.

as the other symbols are apparently 10 and 1 or 11. But, according to Devahuti, the coins of Śīlāditya clearly show that the symbol 'sa' stands for *saṃvat*. The regnal years in Harsha's inscriptions, which we know are dated in the Harsha era, are also preceded by the word *saṃvat*, which no doubt stands for the Harsha *saṃvat*. Devahuti, therefore, believes that as in his inscriptions, Harsha used the word 'saṃvat' for his own era on the coins, abbreviating it to 'sa' owing to their small size.

The figure 11 on Pratāpaśīla's coins and the dates ranging from 1 to 33 on those of Śīlāditya indicate that the two monarchs used different reckonings. It may well be that Prabhākaravardhana used his regnal years while Harsha dated them in his own era, which in effect also meant his regnal years. The date 11 on Pratāpaśīla's coins is quite in keeping with the length of Prabhākaravardhana's reign which is supposed to have started in c. 580 A.D. and the date 33 on Śīlāditya's coins is compatible with the duration of Harsha's reign which lasted for about forty years from 606 to 646 A.D. Hoernle's identification of Pratāpaśīla-Śīlāditya as the son of Yaśodharman is, incidentally, almost impossible. Yaśodharman was evidently at the height of his glory in 532 A.D. and it is most unlikely that he could have survived until c. 580 A.D.¹

K.D. Bajpai on the Gold Coin of Harsha

A gold coin of Harsha was acquired from Farukhabad in Uttar Pradesh. In size (diam. 2.00 cm) and fabric it is similar to the gold coins of the Imperial Guptas. Its weight is 113.50 grains. Therefore, originally it must have weighed about 118 grains, the standard weight of early Gupta gold coins. The coin published by K.D. Bajpai² has been described as follows:

Obv. : Brāhmī legend in five lines :

Parama bhā (bha)

ṭṭāraka Mahārā

jādhirāja Parame

1. Cf. my paper 'Coins of Prabhākaravardhana Pratāpaśīla and Harsha Śīlāditya', *JNSI*, LIV, Pts. i and ii, 1992, pp. 65-69.

2. *JNSI*, XXVII, pp. 103-06.

śvara Śrī Mahārā

(ja Ha) rshadeva

Rev. : Śiva and Pārvatī seated on Nandī. Śiva is shown four-handed and nimbate. He holds in the right upper hand a rosary. The lower right hand rests on his right thigh. The left upper hand holds a *triśūla* while the lower left is placed round the neck of his consort. Śiva wears *Jaṭājūṭa* and round earrings. Over the rosary seems to be the figure of a snake on a staff. Pārvatī is seated gracefully on Śiva's left, with her left leg placed on her right thigh. She is looking at Śiva, having placed her right hand on his left thigh. Her left hand is held out. The goddess is nimbate and has a beautiful coiffure at the back of her head. She wears *lalāṭikā*, *ekāvalī* and *kuṇḍalas*. Below Nandī is seated facing to right.

According to Bajpai, the characters of the Brāhmī legend on the coin leave no doubt as to its date. "They are similar to the Brāhmī characters on the Madhuban and Banskhera records of Harsha." The titles found on this coin before the name of Harshadeva are : *Paramabhaṭṭāraka Mahārājādhirāja Parameśvara Śrī Mahārāja*. These may be compared with those assumed by him and known to us from his two charters and his seals. In the seventh line of the Banskhera copper plate inscription he is described as *Paramamāheśvara Makeśvara iva... Paramabhaṭṭāraka Mahārājādhirāja Śrī Harshaḥ*. On this coin we have the name Harshadeva. Bāṇa in his *Harshacharita* mentions his patron by this name. In the Nausari grant and the Aphsāda stone inscription also the name 'Harshadeva' occurs for this ruler. The royal titles and the name 'Harshadeva' clearly indicate that the coin was issued by king Harsha, the hero of the *Harshacharita* of Bāṇa.

According to Bāṇa, Pushyabhūti, the founder of the Vardhana line, was a believer in Śaivism, and during the time of Harsha's father, the worship of Śiva prevailed in the royal household as it did in the whole

kingdom alongwith that of other deities of the Hindu, Jaina, and Buddhist pantheons. Harsha worshipped Nīlālohitā (Rudra-Śiva) before setting out on his conquests. As noted above, in his inscriptions also he has been described as Paramamāheśvara. Yuan Chwang too records the worship of Śiva at Harsha's sixth quinquennial assembly held at Prayāga. This coin may, therefore, be easily attributed to Harsha Śīlāditya.

The figures of Śiva and Pārvatī on the gold coin of king Harsha are artistically portrayed. This is reminiscent of the portraits of the deities on Gupta gold coins. According to K.D. Bajpai, the contemporary sculptures representing Śiva with Pārvatī found in northern India bear close resemblance to the iconographic forms of these deities on the present coin.¹

Gupta Influence on Post-Harsha Coins : Works of A. Cunningham, D.W. MacDowall, Lahiris, D.C. Sircar and Lallanji Gopal

Numismatists generally divide the coinage of North India of the post-Gupta-pre-Sultanate centuries into five main classes besides some miscellaneous types.² Three of them were directly derived from the Sassanian (through Hūṇa), the Kushāṇa and the Gupta originals while the two others — the Seated Goddess type and the Bull and Horseman types—appear to have evolved from a modification of these types and the adoption of Gupta devices. The Gupta types are mainly found in the coinage of the Maukhari-Pushyabhūti century discussed above while the impact of the Gupta Seated Goddess type is mainly found on the coins of the Kalachuris, Chandellas, Tomaras, Chāhamānas and Gahaḍavālas.

After a gap of several centuries gold coinage was revived by king

1. For a detailed discussion on the coins of Harsha and on the recent dimensions of the historiography of his age also see my *History and Historiography of the Age of Harsha*, Jodhpur, 1992.

2. For early medieval North Indian coins see Lahiri, Bela, in *JNSI*, XLII, 1980, pp. 74-94; Lahiri, A.N., in *Early Indian Indigenous Coins*, ed. D.C. Sircar, Calcutta, 1971, pp. 65 ff.; Gopal, Lallanji, *Early Medieval Coin Types of Northern India*, Varanasi, 1966.

Gāṅgeyadeva (c. 1015-40 A.D.) of the Kalachuri dynasty of Tripurī. His coins, irrespective of their size and metal, have the same type. On the obverse of these coins inside a circle of dots the name of the king is given as *Śrīmad-Gāṅgeyadeva* in bold Nāgarī characters whereas on the reverse, inside a circle of dots, appears the figure of four armed Lakshmī, nimbate, sitting cross-legged with lotuses in her two upper hands and the remaining two hands spread out at her sides. These coins are found in silver and copper also. Cunningham¹ identified this goddess with Pārvatī. He believed that Gāṅgeyadeva issued contemporaneously ‘‘a perfect monetary system in all three metals and different values’’ and that none of his successors continued this coinage. But D.W. MacDowall² points out that the metal of these coins varies from gold to base gold, silver, gilt silver, silvered copper and copper, and the differences in the metal are so imperceptible that it is difficult to believe that they were issued as gold, silver or copper coins and were part of the same monetary system under any one king. The figure of the seated goddess on the reverse of these coins also has innumerable intermediate stages between extremely good representations and others that are crude and stylized, the successive groups in the scale of degeneration suggesting a chronological sequence.

Significantly enough ‘‘Pure gold coins are found only with the earlier types, while silver occurs in the middle ranges and the most degenerate forms of the reverse type are found with the silvered copper issues alone.’’ Therefore, according to Lallanji Gopal, the many stages of degeneration cannot be squeezed within the twenty-five years of Gāṅgeyadeva’s reign and have to be spread over a century or even more.³

The Lakshmī type of Gāṅgeyadeva was also adopted by some of the later rulers in gold and silver in their baser form, rather in cupro-electrum and billon. Among them are included the Paramāra rulers Udayāditya or Udayadeva and Naravarman of Malwa.

1. Cunningham, *CMI*, p. 72.

2. *Numismatic Chronicle*, Sixth Series, XVIII, pp. 157-65.

3. Gopal, Lallanji, *op. cit.*, p. 36.

Of the Chandellas, Kīrttivarman was the first to strike coins of the Seated Goddess type. All his successors, who issued coins in gold. viz. Sallakshaṇavarman, Madanavarman, Paramardin, Trailokyavarman and Vīravarman, used for them the Seated Goddess type. Of Madanavarman alone are known some silver coins of the Seated Goddess type, while for Madanavarman and Vīravarman we have some copper pieces of this device.

Among the Gahadāvālas, Govindachandra issued gold and silver coins of the Seated Goddess type. The gold pieces of Govindachandra, however, have a trident below the obverse legend. Among the Chāhamānas, Ajayarāja alone issued some Seated Goddess coins in silver.

There is difference of opinion about the dynasty to which the three kings bearing the names of Ajayapāla, Kumārapāla and Mahipāla, who issued coins of the Seated Goddess type, belonged. They are generally believed to have been Tomaras of the Delhi area, but some scholars doubt this attribution.

From the above discussion it is obvious that though the study of the Indian coins of the two post-Gupta centuries had been by and large neglected by earlier scholars, now greater attention is being paid to them by several numismatists such as B.N. Mukherjee, Lallanji Gopal, A.K. Narain, Bela Lahiri, A.N. Lahiri, to name only a few. Recently, in 1990 John S. Deyell brought out his monograph *Living Without Silver : The Monetary History of Early Medieval North India* from Delhi. In this work he has not confined himself to the primary, narrow concern of a numismatist for individual coins or coin types, but has undertaken the monetary system which has been subjected to an objective, detailed analysis basing it primarily on the study of coin hoards. But unfortunately the period covered in his work starts with c. 750 A.D. when the period covered in the present work ends. One fervently hopes that he would undertake a similar study of pre-750 A.D. period as well.

Chapter Eleven

Some Miscellaneous Aspects

Thus we have surveyed the progress of ancient Indian numismatic studies from the late eighteenth century to 1998. As is obvious and natural, in our survey we concentrated our attention first on the works on the origin and antiquity of coinage in India and then discussed the progress of the studies of the coinages of various periods and dynasties. In the process some aspects of numismatic studies had to be either neglected or noticed only briefly. We propose to fill up such lacunae in this concluding chapter.

General Works on Ancient Indian Numismatics

In the preceding pages we could not devote sufficient attention to those general works which seek to discuss ancient Indian numismatics in its entirety. Naturally, such works treat the coinages of various periods and dynasties only briefly. Among the first works of this category are included Alexander Cunningham's *Coins of Ancient India from Earliest Times Down to the Seventh Century A.D.*, published from London in 1891 and E.J. Rapson's *Indian Coins*, published from Strassburg in 1897. They have been noticed in the present monograph earlier occasionally. Then comes C.J. Brown's handbook, *The Coins of India* (London, 1922), which gives a brief account of Indian coins upto those issued by the successors of the Mughals. "This little book", explained Brown in his Introduction, "has been written as an introduction to the study of the subject", and he hoped that "it would be useful for 'students and (coin) collectors' giving them a general conspectus of all the more important series of Indian coins." But after Brown the publication of such general works on ancient

Indian numismatics became rather rare.¹

The next monograph which belongs to the genre of C.J. Brown's 'handbook' is P.L. Gupta's *Coins* published in 1969 from New Delhi. This work tells us the story of Indian coins from the beginning to the coins of the Indian Republic in about two hundred pages of which only seventy are devoted to the coins of ancient India. Nonetheless it is a remarkable work from the pen of a great numismatist who not only tells the story of Indian coins as he perceives it but tries to cover "as many details as are necessary for a coin-collector to view his coins in their proper perspective and with a view to presenting a coherent picture of the historical background." (p.x).

However, the work of P.L. Gupta, though excellent within the parameters it has set for itself, does not fulfil the requirements of serious university students, teachers and researchers of numismatics. S.R. Goyal's *The Coinage of Ancient India* (Jodhpur, 1995), earlier published in two volumes (*Indigenous Coins of Early India* and *The Dynastic Coins of Ancient India*) seeks to fulfil this requirement.

The *Coinage* of S.R. Goyal is a bulky volume in xxxiv+502 pages and carries 64 plates. It studies, as we have occasionally noticed in the preceding pages, not only the problems concerning the origin and the antiquity of Indian coins, but also discusses the importance of numismatics for the study of ancient Indian history, literary sources for ancient Indian numismatics, general features of ancient Indian coins and the coinages of the ancient Indian states upto c. 750 A.D. It also contains a description of major coin types of various dynasties and kings and acquaints the reader with the latest researches on the subject and the views of various scholars on different problems, apart from what its author has himself to say on a particular topic.

The publication of general works on ancient Indian numismatics

1. D.R. Bhandarkar's *Ancient Indian Numismatics* (Calcutta, 1921) and S.K. Chakraborty's *Ancient Indian Numismatics* (Mymensingh, 1931) are, strictly speaking, not handbooks on ancient Indian numismatics.

in Indian languages also began quite early. The first work of this category was R.D. Banerji's *Prāchīna Mudrā* (1915), in Bengali, which delineated the history of Indian coins from the earliest times to the Muslim conquest while in Hindi it was probably Vasudev Upadhyaya who brought out the first general work on ancient Indian numismatics titled *Prāchīna Bhāratīya Sikke* in V.S. 2005 (1948 A.D.). Though Upadhyaya's work was a textbook of ordinary standard, being the only work of its kind it served to some extent but for several decades the needs of the Hindi medium students of the subject. Now, of course, several much better works in Hindi are available. Among them are included *Prāchīna Bhāratīya Sikke* (Kashi, 1987) and *Bhārata ke Pūrvakālīka Sikke* of P.L. Gupta, *Bhāratīya Sikkon kā Itihāsa* (Delhi, 1993) of Ajit Raizada which describes the history of Indian coins from their inception to the Mughal period, and *Prāchīna Bhāratīya Mudrāyeṇ* (Delhi, 1998) of Rajwant Rao and P.K. Rao in which ancient Indian coins from the beginning to the first half of the seventh century A.D. are described. In Gujarati such a work is *Prāk-Guptakālīna Bhāratīya Sikkāo* of Rasesh Jamindar (Ahmedabad, 1994). It, however, deals with the coins of pre-Gupta period only. All these works (there may be some others as well) written for the benefit of college and university students are indicative of the growing popularity of numismatics. Moreover, though text-books, some of them are quite good content-wise and production-wise. Their authors should be commended for making the subject easier for the students who want to study it in their mother-tongue.

Monographs on Some Specialised Topics

Some works on numismatic studies are devoted to specialised topics. It was not feasible to discuss them within the historiography of the coinage of any particular period or dynasty. Among such works is included *Socio-Religious and Cultural Study of the Ancient Indian Coins* by Swati Chakraborty. (Delhi, 1986). According to her, her monograph strives to reflect, through the prism of numismatical sources, the forces at work in the fields of religion, society, art and culture upto the end of the Gupta

rule. It is divided into 5 chapters. Ch. 1 gives a brief survey of the coinage in India. Ch. 2 discusses the manifestations on coins of different religious traditions while Ch. 3 delineates social aspects as gleaned from coins. Ch. 4 is concerned with the artistic impulses of those times and the last and concluding Chapter tries to recapture the cultural past of the country.

Another work which deals with some specific problems of ancient Indian numismatics is Prashant Srivastava's *Aspects of Ancient Indian Numismatics* (Delhi, 1996). It is a study of the joint, commemorative and victory coins of ancient India which sometimes form a more important source of history than normal issues. After a detailed Introduction (pp. xxv-xl), the book is divided into three Sections on Joint Issues (Chapters 1-5), Commemorative Medallions (Chapters 6-9) and Victory Medals (Chapter 10). They are followed by an Appendix on 'The Jitam Bhagavatā Padmanābhena Coins'. However, at many places his views are highly fanciful.

Some monographs have also been published on the divinities and their emblems occurring on ancient Indian coins. The varied reverse devices on the Kushāṇa coins representing divinities of various faiths were critically discussed by some scholars in pre-Independence period. In the post-1947 era the most significant contribution on this topic was probably the Chapter titled 'Brāhmanical Divinities and Their Emblems on Early Indian Coins' in J.N. Banerjea's *Development of Hindu Iconography* (Calcutta, 1956), though the great savant did not suggest how far the symbols occurring on early Indian coinage could be attributed to various sects. Then Bhaskar Chattopadhyay studied these aspects of the Kushāṇa coinage in his *The Age of the Kushāṇas* (Calcutta, 1967) and of early Indian coinage in his paper 'Primitive Elements in Symbols on Early Indian Coinage' submitted to the 28th Session of the All-India Oriental Conference, 1976. In 1977 he brought out a comprehensive work on the subject named *Coins and Icons — A Study of Myths and Symbols in Indian Numismatic Art* from Calcutta. In this work he has also tried to show the impact of some alien iconographic and mythological concepts

on Indian coins and their gradual Indianisation. In Ch. I of this work he furnishes a general religious background for understanding the devices found on early Indian coins. Ch. II embodies an account of the evolution of symbols used on PMC, Local and Tribal coins. Ch. III contains a study of Greek gods and goddesses represented on Indian coins while Ch. IV makes a study of Zoroastrian deities. Ch. V studies the development of some Brāhmanical mythological concepts manifested through iconographic media and Ch. VI attempts to show how the pre-Gupta coins may be used to reconstruct the religious history of the period. The concluding chapter, that is Ch. VII, discusses how the coinage furnishes a running commentary on the development of religious beliefs along with iconographic ideas. Thus, Chattopadhyay's work discusses in some detail the religious and iconographic aspects of early Indian coins.

Among monographs on Indian coins which are of specialised nature is included *The Indian Gold* (An Introduction to the Cabinet of the Gold Coins in the Indian Museum) by B.N. Mukherjee (assisted by T.N. Raychaudhuri). It was published by the Indian Museum, Calcutta, in 1990 on the occasion of the 175th anniversary of its foundation. Though it is a small volume of only 100 pages and contains 21 plates of select gold coins preserved in the Museum, it has been produced very excellently and is probably one of the best publications on Indian coinage from the point of view of illustrations. The monograph is divided into three Sections. The first Section gives a general survey of Indian gold coins from the earliest times to the modern period. The second Section is the catalogue part in which all the relevant details about each coin are given including the name of the issuer, his dynasty, obverse, reverse, percentage of gold either with silver or copper, die alignment, denomination, specific gravity of the coin, etc. The third Section contains the album of plates.

In recent years some scholars are devoting their attention to the study of metals used for manufacturing various objects including coins. In 1992 Rajni Nanda published *The Early History of Gold in India* from New Delhi. This work is supposed to be an exercise in the integration of

data of all kinds on the early history of gold in India. Here an attempt has been made to synthesize the available information from different sources and bring out the historical pattern. In his first three chapters Nanda has dealt with geological, archaeological and literary data while in the fourth and final chapter has been presented a summary and conclusions. It is within the archaeological data that the author has discussed the numismatic evidence. Nanda has listed the gold coins of the Imperial Guptas in some detail and also find-spots of gold coins in India, though without making much use of them.

Numismatics and Archaeology

The interaction of numismatics and archaeology is an interesting and useful subject. To bring out the main facets of their mutual relationship an international seminar was organised under the auspices of the Indian Institute of Research in Numismatic Studies, Nasik. The papers read in the Seminar were published under the title *Numismatics and Archaeology* by P.L. Gupta and A.K. Jha (eds.) from Nasik in 1987.

In his *Coins and Culture : An Archaeological Approach* (New Delhi, 1995), Sunil C. Ray has pursued further the line of enquiry adopted by him in his *Stratigraphic Evidence of Coins in Indian Excavations and Some Allied Issues* (Varanasi, 1959). However, in his later monograph he has set for himself a more comprehensive canvas than merely using coins for determining the dates of the layers found in excavations. Now for him a coin reflects the pattern of life of which it is usually a product. Thus, for him the coins of the Kushāṇas “stand for a society where foreign influence is filtered and well absorbed in everyday life”; “the coins of the Western Kṣatrapas and the Sātavāhanas stand for certain definite standards in living”; “the presence of Gupta and contemporary coins in association with highly artistic terracottas, priced metal objects, progressive forms of Brāhmaṇical deities,...hints towards a contented life-style based upon a strong agro-economic structure and well-greased internal trade” while “political disintegration of India is reflected in the variety of coin-types encountered in post-Gupta levels” and “other finds

associated with the coins... suggest a moribund state of economy.'''

The present study of Ray covers over a hundred sites, all except Taxila falling within the present boundaries of India. These have been classified under four geographical zones. The work is important because it surveys the published material on the subject comprehensively.

Among the works of such specialised nature may be included *Coinage in Ancient India* of Svami Satya Prakash and Rajendra Singh in two volumes published from Delhi in 1990. It claims to be a numismatic, archaeological and metallurgical study of ancient Indian coins, though one fails to understand what do the authors mean by 'numismatic study of coins'. Some of its Chapters such as Ch. XI on casting techniques of ancient Indian coinage (pp. 201-37) are fairly good and the book is valuable for its bibliographical references also. But strangely it carries reproductions from the works of others quite freely. For instance the early part of Ch. V on punch-marked coins is a reproduction from C.J. Brown's *The Coins of India* as the authors themselves admit (p. 85, n. 1) while much of R. Choudhary's paper has been reproduced on page 200 and the preceding pages.

Numismatic Works with Economic Perspective

The assumption that numismatists possess any economic perspective has been questioned by some (cf. John S. Deyell, *Living Without Silver: The Monetary History of Early Medieval North India*, Delhi, 1990), but it can hardly be doubted that in economic research the pattern of production, exchange and dispersion of money can define a past economic system and illuminate the process of change within it. Unfortunately not much work has been done on these lines by scholars working on ancient Indian coins, though the attempts of D.D. Kosambi, may be recalled in this sphere. Then there are others such as S.K. Maity (*Early Indian Coins and Currency System*, Delhi, 1970), O.P. Singh (*Economic Gleanings from Early Indian Coins*, Varanasi, 1985), B.N. Mukherjee (*Coins and Currency System in Gupta Bengal*, New Delhi, 1992; *Media of Exchange*

in *Early Medieval North India*, New Delhi, 1992; and *Coins and Currency System in Post-Gupta Bengal*, New Delhi, 1993) and D.N. Jha (*Economy and Society in Early India*, New Delhi, 1993) who are working on the economic aspects of numismatic studies, though with somewhat different approaches.

The progress of money economy in ancient India is the theme of Rekha Jain's *Ancient Indian Coinage : A Systematic Study of Money Economy from Janapada Period to Early Medieval Period (600 B.C. to A.D. 1200)* published from New Delhi in 1995. She traces the history of ancient Indian coins from 600 B.C. to 1200 A.D. through six successive periods the last of which (c. 801 to 1200 A.D.) falls outside the period covered in our work. In her monograph Rekha Jain has devoted one Chapter each to these periods. She begins by focusing attention on the meaning and evolution of money economy in ancient India, and seeks to compile, classify and correlate the available numismatic and allied data to the money economy existing in those times and analyses the background, problems and situations closely associated with it. She has come to the conclusion that in ancient India total economy clustered around metallic coins; that coinage in India originated during the second urban revolution; that in the Janapada age money economy was initially 'local', later it became national; that money economy and commerce influenced each other in their growth; that the downfall of the Mauryas was responsible for financial stringency; that monetary economy penetrated into large parts of the country in the post-Maurya period; that in the Gupta period money economy became weaker as is shown by the comparative absence of copper coins and the fact that people depended mainly on barter or *cowries* for small transactions; and that in the post-Gupta period money economy further declined. As is obvious, there is nothing much which may be called new in Rekha Jain's conclusions, but her attempt to delineate an outline of the growth of money economy does open a path for more work in this direction.

Collected Works

Some relief from the troubles involved in handling the sea of articles on ancient Indian numismatics (of which we spoke in our Preface) is provided by the publication of monographs containing the collection of articles of a particular scholar on different aspects of numismatic studies or of articles by different scholars on some particular theme. D.C. Sircar's *Studies in Indian Coins* (Delhi, 1968) and *Indian Numismatic Studies* of K.D. Bajpai (New Delhi, 1976) are the examples of the monographs of the first category while *Early Indian Indigenous Coins* edited by D.C. Sircar (Calcutta, 1970) and *Numismatic Panorama* edited by K.K. Maheshwari and Biswajeet Rath (New Delhi, 1996) are the instances of the second category.

Numismatic Institutes and Journals

Indian numismatics is a developing discipline, and in its growth numerous societies have handsomely contributed. Till a few decades ago Varanasi was its main centre where the office of the Numismatic Society of India,¹ founded in 1910 by some enthusiastic European coin collectors, is located in the Banaras Hindu University, Varanasi, since its inception. In 1936 the Numismatic Society started the publication of its Journal (*JNSI*). Till then the Numismatic Supplements of Journals like those of The Royal Asiatic Society of Bengal were the only publications exclusively devoted to the study of coins. A.S. Altekar, the celebrated numismatist and scholar of ancient Indian history, became the first Editor of *JNSI*. Under his guidance the Society and its Journal both progressed rapidly. Among the students of Altekar who contributed enormously to the progress of Indian numismatics are included such stalwarts as A.K. Narain, V.S. Pathak, P.L. Gupta and A.M. Shastri.

Meanwhile, the popularity of the discipline of ancient Indian numismatics was spreading rapidly. As early as 1918 Numismatics was

1. For a history of the Numismatic Society of India, cf. Mohd. Naseem in *JNSI*, XLIX, Pts. i-ii, 1987, pp. i-v.

recognised as a subject of study by the University of Calcutta, initially within the discipline of Archaeology. Gradually separate paper on Ancient Indian Numismatics (or a combined paper of Numismatics and Epigraphy) was introduced in several universities.

Another development which has taken place in recent decades is that different museums and newly sprung local numismatic societies are taking interest in the progress of numismatic studies. Most important of them is the Indian Institute of Research in Numismatic Studies, Anjaneri, Nasik. Inaugurated in Jan. 1984 it came into being as a result of the enthusiasm of P.L. Gupta who was ably supported in this venture by K.K. Maheshwari. P.L. Gupta himself became its first Director. In 1989 he was succeeded by Amal Kumar Jha, though Gupta is still the guiding force behind the activities of the Institute. The Institute has organised various seminars on the topics of numismatic importance (including the one on 'Numismatics and Archaeology') and has published several significant numismatic works including *Ancient Indian Silver Punchmarked Coins of the Magadha-Maurya Kārshāpana Series* of P.L. Gupta and T.R. Hardaker.

In recent years several other numismatic or coin societies or coin study circles, as some of them are called, have come into being in different parts of the country such as the Academy of Indian Numismatics and Sigillography, Indore, Coins Study Circle, Calcutta, Numismatic Society of Hyderabad, Tamil Nadu Numismatic Society, Madras, Numismatic Society of Bombay, etc. which are catering to the needs of local coin collectors and numismatists. Some of them are even publishing research journals and monographs. The journal of the Bombay Numismatic Society named *Numismatic Digest*, started in 1977, earned much renown. Later on, it was taken over by the Indian Institute of Research in Numismatic Studies, Anjaneri.

In 1987 was founded a coin society named Mudrā Bhāratī. From 1987 to 1990 its Seceretary was Dilip Rajgor who, in 1990, became the Editor of the *Indian Coin Society Newsletter*.

In South India the most important society devoted to the study of coins is South Indian Numismatic Society which is working under the guidance of such learned scholars as A.V. Narasimha Murthy, I.K. Sarma, K.V. Raman, etc. It brings out its own Journal, the first issue of which was published in 1991 under the title *Studies in South Indian Coins*. It was edited by A.V. Narasimha Murthy.

Apart from the coin societies and coin study circles various museums and the departments teaching Ancient Indian History and/or Archaeology in different universities sometimes publish articles on ancient Indian numismatics in their journals or bulletins. Sometimes they also publish monographs on the subject.

A happy development of recent years is the association of some publishing houses in the publication of numismatic journals. For example, *Numismatic Studies* and *Oriental Numismatic Studies*, are being published respectively by M/s Harman Publishing House and M/s Sundeep Prakashan of New Delhi. Devendra Handa was the Editor of the first three volumes of the *Numismatic Studies*, a task which devolved upon A.M. Shastri and still later on Manmohan Kumar. The First Volume of *Oriental Numismatic Studies* was also edited by Devendra Handa. It seems that the discipline of numismatics has become quite popular in Delhi, Chandigarh and Haryana and some scholars of this region deem it worth their while to pursue it with dedication and devotion.

Addenda

Page 12

For various aspects of Śatamāna cf. D.K. Ganguly, 'The Śatamāna Metallic Currency', in *Prācī-Prabhā : Essays in Honour of Professor B.N. Mukherjee*, ed. by D.C. Bhattacharyya and Devendra Handa, New Delhi, 1989. (pp. 91-101).

Page 57

In his paper published in *Man and Environment*, Vol. XXIII, No. 1, 1998 (pp. 45-62) Dilip Rajgor gives the results of his fieldwork in which he studied and photographed nearly 10,000 PMC of the pre-Maurya janapadas. Here he has classified these coins into 82 distinct types which have been assigned to 17 janapadas on the basis of the provenance of the coin-hoards and the location of the janapadas. He suggests that they came into vogue in the sixth century B.C.

Page 175

In 1997 Jagdish S. Yadav and Nirmala Yadav published their *The Imperial Guptas : A Bibliography* from New Delhi. In its section on 'Numismatics' it carries 526 entries (1353 to 1878).

Page 201

For a study of the importance of numismatics for the reconstruction of political history and various aspects of culture see S.R. Goyal's *Coinage*, pp. 1-17; also Lallanji Gopal, in *JNSI*, LIII, pp. 1-12.

Page 208

Cf. also *Ex Moneta : Essays on Numismatics in Honour of Dr. David W. MacDowall*, ed. by Amal Kumar Jha and Sanjay Garg. (New Delhi, 1998). Among the important papers it contains are included : A.D.H. Bivar, 'A Coinage for Aśoka'; Joe Cribb, 'Western Satraps and Sātavāhanas : Old and New Ideas of Chronology'; and P.L. Gupta, 'Kushāṇa Vāsudeva and Successors : Numismatic Appraisal'.

Bibliographical Index

This bibliographical Index lists the names of modern historians and numismatists alongwith their monographs and select contributions to research journals, etc. (mentioned in italics) in order to give an idea of the literature that has been dealt with in this work to delineate the progress and changing pattern of the historiography of ancient Indian numismatics. Detailed references to them will be found on the pages (mentioned in Roman Numerals) where they have been discussed. No scholar or work not discussed or mentioned in the present monograph has been included here.

Acharya, G.V. : 100.

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